

ELLEMENT & ELLEMENT
Airport Executive Centre
503 – 1780 Wellington Avenue
Winnipeg, Manitoba
R3H 1B3

Phone: (204) 954-7300
Toll Free: (888) 840-1045
Fax: (204) 954-7310
Email: contact.us@ellement.ca
Website: www.ellement.ca

Actuarial Report on the Superannuation Adjustment Account as at December 31, 2011

Civil Service Superannuation Fund
Indexing to be Effective July 1, 2012

May, 2012

Actuarial Report on the
Superannuation Adjustment Account
of The Civil Service Superannuation Fund
as at
December 31, 2011

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1. ACTUARY'S REPORT

The purpose of this Report is to determine the financial position of the Superannuation Adjustment Account (Account) of The Civil Service Superannuation Fund (CSSF or Fund) as at December 31, 2011, and the superannuation adjustment or cost-of-living adjustment (indexing) which can be granted effective July 1, 2012 according to the formula for the increase and the amounts available in the Account. Any increases in retirement pensions or increases in disability pensions are charged to the Account.

The long-term objective is to provide 20-year pre-funding of superannuation adjustments expected to be charged to the Account. At December 31, 2011, this objective had not been achieved.

Superannuation adjustments are granted on July 1 of a year to offset part of the increase in the cost of living that has occurred in the 12-month period ended December 31 of the previous year as measured by the change in the Consumer Price Index for Canada (CPI). The maximum increase, which can be presently granted under the terms of the Civil Service Superannuation Act (CSSA), is $\frac{2}{3}$ of the increase in the cost of living.

Effective January 1, 2000, the Civil Service Superannuation Board (Board) adopted a new method to credit interest to the Account to reflect the rate of return earned on the Fund, net of investment expenses and after reflection of any assets dedicated to the Account. As a result, an asset smoothing reserve has been established to dampen the market fluctuations that are expected to occur in the future.

The increase in the CPI, which occurred during the 12 months ending December 31, 2011, is equal to 2.30%.

The amount of the superannuation adjustment a member receives is determined by multiplying the percentage increase approved by the Board by the total of the basic pension plus superannuation adjustments granted to date. The member's basic pension is the formula pension determined under the CSSA prior to any adjustment for an optional form of payment. A full superannuation adjustment is paid to those retired employees who began to receive a pension 18 months prior to the date of increase. A partial or interim superannuation adjustment is paid to those employees who retired or who otherwise became eligible for a pension during that same 18-month period.

I recommend that the superannuation adjustment effective July 1, 2012 be made equal to no more than 1.53% of the total of the monthly pension which would be received currently if the normal form of pension had been elected, plus any previously granted adjustments in that pension.

I will be pleased to discuss this Report at your convenience.

DATED at Winnipeg this 25th day of May, 2012.

ELLEMENT & ELLEMENT



Dennis Ellement, F.S.A., F.C.I.A.

cssf_colal1_rpt

2. VALUATION BALANCE SHEET: GOING CONCERN

The ability of the Account to finance any superannuation adjustment at July 1, 2012 is indicated by the relationship between:

- (a) the value of the assets allocated to the Account as at December 31, 2011, and
- (b) the present value of the going concern liabilities as at December 31, 2011, which the Account has as a result of the superannuation adjustments already granted.

| | December 31, 2011 | December 31, 2010 |
|--|-----------------------|-----------------------|
| Going Concern | | |
| <u>Assets</u> | | |
| Value of Account | \$ 360,882,000 | \$ 376,470,000 |
| Asset Smoothing Adjustment (Note 1) | 10,945,780 | (9,690,578) |
| Unavailable portion of 1986 surplus transfer (Note 6) | (8,087,700) | (10,553,400) |
| Unavailable portion of 2004 surplus transfer (Note 7) | (123,521,700) | (131,455,600) |
| Total Assets | <u>\$ 240,218,380</u> | <u>\$ 224,770,422</u> |
| <u>Liabilities (Note 2)</u> | | |
| Value of superannuation adjustments granted from 1977 to date (Notes 3,5) | \$ 189,984,639 | \$ 171,441,466 |
| Provision for future Adverse Experience (PfAD) (Note 3) | 5,700,000 | 5,143,000 |
| Total Liabilities | <u>\$ 195,684,639</u> | <u>\$ 176,584,466</u> |
| Amount available to finance future superannuation adjustments | <u>\$ 44,533,741</u> | <u>\$ 48,185,956</u> |

The long-term objective is to provide 20-year pre-funding of superannuation adjustments expected to be charged to the Account. If the amount in the Account is insufficient to provide for 20-year pre-funding, then the maximum increase in superannuation allowances is limited to 2/3 of the increase in the CPI.

This 20-year objective is estimated to require about \$630,320,500 (increases significantly, if indexing beyond 20 years is also reflected), at a 2.00% indexing level, to be available in the Account as at December 31, 2011. The "long-term" amount available was equal to \$176,143,141 (\$44,533,741 + \$8,087,700 + \$123,521,700) at that date, as indicated above. As a result, the long-term objective of 20-year pre-funding of indexing had not been achieved as at December 31, 2011.

3. VALUATION BALANCE SHEET: SOLVENCY TEST

The Account is exempt from the solvency funding requirements under the Manitoba Pension Benefits Act.

However, the Canadian Institute of Actuaries (CIA) requires that the actuary comment on the financial position of the Account should it be wound up at the valuation date and pensions be purchased at a suitable insurance carrier. The following provides the required CIA disclosure.

| | December 31, 2011 | December 31, 2010 |
|--|-----------------------|-----------------------|
| Solvency Test | | |
| <u>Assets</u> | | |
| Value of Account | \$ 360,882,000 | \$ 376,470,000 |
| Asset Smoothing Adjustment (Note 1) | - | - |
| Unavailable portion of 1986 surplus transfer (Note 6) | - | - |
| Unavailable portion of 2004 surplus transfer (Note 7) | - | - |
| Total Assets | \$ 360,882,000 | \$ 376,470,000 |
| <u>Liabilities</u> (Note 2) | | |
| Value of superannuation adjustments granted from 1977 to date (Notes 4,5) | \$ 226,863,144 | \$ 185,364,658 |
| Provision for future Adverse Experience (PfAD) (Note 4) | 6,806,000 | 5,561,000 |
| Total Liabilities | \$ 233,669,144 | \$ 190,925,658 |
| Amount available to finance wind-up superannuation adjustments | \$ 127,212,856 | \$ 185,544,342 |

4. COST OF JULY 1, 2012 SUPERANNUATION ADJUSTMENT

Superannuation adjustments are presently limited by the terms of the CSSA to 2/3 of the increase in the CPI during the 12-month period ended December 31 of the year prior to the date of increase. The CPI (2002=100) was 117.5 on December 31, 2010 and 120.2 on December 31, 2011. This indicates the cost of living increased by 2.30% during the period.

The full superannuation adjustment is paid to those retired employees or other persons who became entitled to receive a pension prior to December 31, 2010. Partial or interim superannuation adjustments are paid to members and other persons whose pension commenced after December 31, 2010. These superannuation adjustments are percentages of the full superannuation adjustment. The table of applicable percentages is shown in Note 5 of this Report.

The cost of granting 1.53% or 2/3 of 2.30%, on July 1, 2012 is equal to \$30,352,200 as at December 31, 2011.

| Year | Eligible Pensioners | Change in CPI Reviewed | Adjustment Granted | | % CPI Change Granted | Indexing Cost Granted | Account Contributions |
|------|---------------------|------------------------|--------------------|--------|----------------------|-----------------------|-----------------------|
| | | | % Part | ¢ Part | | | |
| 1977 | 2,568 | 5.91 | 2.90 | 46 | 98.1 | \$ 1,735,960 | \$ 1,208,780 |
| 1978 | 2,909 | 9.46 | 3.50 | 56 | 74.0 | 2,327,200 | 2,220,958 |
| 1979 | 3,159 | 8.36 | 3.10 | 54 | 74.2 | 2,415,200 | 2,324,642 |
| 1980 | 3,463 | 9.80 | 2.75 | 49 | 56.1 | 2,644,500 | 2,588,509 |
| 1981 | 3,805 | 11.19 | 2.90 | 54 | 51.8 | 2,850,500 | 2,942,025 |
| 1982 | 4,114 | 12.10 | 3.90 | 71 | 64.5 | 4,877,200 | 3,432,320 |
| 1983 | 4,402 | 9.26 | 3.88 | 71 | 83.4 | 5,243,370 | 3,896,083 |
| 1984 | 4,974 | 4.55 | 2.25 | 49 | 100.0 | 3,888,500 | 3,941,546 |
| 1985 | 5,252 | 3.76 | 1.89 | 45 | 100.0 | 4,025,700 | 4,012,187 |
| 1986 | 5,633 | 4.35 | 2.18 | 59 | 100.0 | 4,728,800 | 4,332,794 |
| 1987 | 6,053 | 4.17 | 2.09 | 59 | 100.0 | 5,583,500 | 4,663,735 |
| 1988 | 6,568 | 4.15 | 1.39 | 41 | 66.7 | 5,043,430 | 5,139,247 |
| 1989 | 7,023 | 4.00 | 1.24 | 38 | 62.0 | 5,076,098 | 5,264,954 |
| 1990 | 7,470 | 5.13 | 1.71 | 55 | 66.7 | 7,572,600 | 5,582,498 |
| 1991 | 7,865 | 5.00 | 1.67 | 56 | 66.7 | 9,611,200 | 5,570,536 |
| 1992 | 8,566 | 3.78 | 2.52 | - | 66.7 | 9,019,300 | 5,757,381 |
| 1993 | 9,154 | 2.14 | 1.43 | - | 66.7 | 6,050,000 | 5,622,028 |
| 1994 | 9,828 | 1.70 | 1.13 | - | 66.7 | 5,937,400 | 5,540,923 |
| 1995 | 10,268 | 0.23 | 0.15 | - | 66.7 | 891,600 | 5,624,117 |
| 1996 | 10,490 | 1.75 | 1.17 | - | 66.7 | 7,469,600 | 5,578,940 |
| 1997 | 9,572 | 2.17 | 1.45 | - | 66.7 | 7,880,500 | 4,660,000 |
| 1998 | 9,896 | 0.73 | 0.49 | - | 66.7 | 2,954,700 | 4,986,000 |
| 1999 | 10,266 | 1.05 | 0.70 | - | 66.7 | 4,560,000 | 5,004,000 |
| 2000 | 10,697 | 2.58 | 1.72 | - | 66.7 | 11,908,500 | 5,345,000 |
| 2001 | 10,999 | 3.23 | 2.15 | - | 66.7 | 16,821,200 | 6,508,000 |
| 2002 | 11,498 | 0.70 | 0.47 | - | 66.7 | 3,869,800 | 6,882,000 |
| 2003 | 11,982 | 3.88 | 2.59 | - | 66.7 | 19,192,700 | 7,156,000 |
| 2004 | 12,515 | 1.99 | 1.33 | - | 66.7 | 9,703,600 | 7,808,000 |
| 2005 | 13,080 | 2.12 | 1.41 | - | 66.7 | 10,801,600 | 8,456,000 |
| 2006 | 13,620 | 2.15 | 1.43 | - | 66.7 | 11,502,600 | 8,689,000 |
| 2007 | 14,184 | 1.64 | 1.09 | - | 66.7 | 10,928,500 | 9,289,000 |
| 2008 | 14,912 | 2.38 | 1.59 | - | 66.7 | 17,944,400 | 9,819,000 |
| 2009 | 15,568 | 1.16 | 0.77 | - | 66.7 | 12,283,100 | 10,910,000 |
| 2010 | 16,210 | 1.32 | 0.88 | - | 66.7 | 16,065,000 | 11,118,000 |
| 2011 | 16,686 | 2.35 | 1.57 | - | 66.7 | 29,503,100 | 11,932,000 |
| 2012 | 17,615 | 2.30 | 1.53 | - | 66.7 | 30,352,200 | n/a |
| | | | | | | <u>\$313,263,158</u> | <u>\$203,806,203</u> |

5. OPERATION OF THE ACCOUNT

The Account was established by an amendment to the CSSA, which became effective on July 1, 1977. The purpose of the Account is to finance the Fund's share of increases in superannuation allowances granted as a result of increases in the cost of living after January 1, 1976. On July 1, 1977, \$3,000,000 of the Fund was allocated to the Account. The operation of the Account is determined as follows:

- (a) credit 10.20% of the employees' (plus matching employers') contributions for the year,
- (b) credit interest on the average balance in the Account,
- (c) charge 50% (100% for matching employers) of the superannuation adjustments granted (ensure that 100% of the adjustments in respect of the pension formula improvement made effective September 1, 2000 are charged), and
- (d) credit / charge special transfers to/from the Account authorized by amendments to the CSSA, and events such as the MTS privatization.

The following is a summary of the operation of the Account:

| Year | Contributions | Interest Credits | Adjustment Payments | Special Allocations | Closing Balance | Rate of Return |
|-------|----------------------|----------------------|------------------------|----------------------|-----------------|----------------|
| 1977 | \$ 1,208,780 | \$ 160,539 | \$ (115,764) | \$ 3,000,000 | \$ 4,253,555 | 7.84% |
| 1978 | 2,220,958 | 501,207 | (392,028) | - | 6,583,692 | 9.70% |
| 1979 | 2,324,642 | 740,889 | (715,987) | - | 8,933,236 | 10.03% |
| 1980 | 2,588,509 | 1,014,559 | (1,057,304) | - | 11,479,000 | 10.46% |
| 1981 | 2,942,025 | 1,426,833 | (1,445,863) | 1,391,100 | 15,793,095 | 11.04% |
| 1982 | 3,432,320 | 2,076,623 | (1,990,248) | 1,565,600 | 20,877,390 | 12.01% |
| 1983 | 3,896,083 | 2,728,585 | (2,698,547) | 1,767,400 | 26,570,911 | 12.20% |
| 1984 | 3,941,546 | 3,439,472 | (3,296,815) | - | 30,655,114 | 12.79% |
| 1985 | 4,012,187 | 3,867,979 | (3,784,228) | - | 34,751,052 | 12.57% |
| 1986 | 4,332,794 | 4,293,988 | (4,363,367) | - | 39,014,467 | 12.36% |
| 1987 | 4,663,735 | 4,762,586 | (5,254,158) | - | 43,186,630 | 12.30% |
| 1988 | 5,139,247 | 5,202,335 | (6,028,614) | - | 47,499,598 | 12.17% |
| 1989 | 5,264,954 | 5,647,176 | (6,557,826) | 36,405,787 | 88,259,689 | 11.73% |
| 1990 | 5,582,498 | 10,679,744 | (7,016,480) | - | 97,505,451 | 11.85% |
| 1991 | 5,570,536 | 10,948,378 | (7,934,086) | - | 106,090,279 | 11.05% |
| 1992 | 5,757,381 | 11,310,640 | (8,821,101) | 1,548,197 | 115,885,396 | 10.53% |
| 1993 | 5,622,028 | 11,228,338 | (9,448,147) | - | 123,287,615 | 9.57% |
| 1994 | 5,540,923 | 10,958,839 | (9,814,103) | - | 129,973,274 | 8.88% |
| 1995 | 5,624,117 | 11,638,837 | (9,841,942) | - | 137,394,286 | 8.90% |
| 1996 | 5,578,940 | 11,967,044 | (9,926,270) | - | 145,014,000 | 8.65% |
| 1997 | 4,660,000 | 9,322,000 | (7,974,000) | (35,860,000) | 115,162,000 | 8.48% |
| 1998 | 4,986,000 | 9,921,000 | (8,264,000) | 2,808,000 | 124,613,000 | 8.35% |
| 1999 | 5,004,000 | 9,535,000 | (8,269,000) | - | 130,883,000 | 7.61% |
| 2000 | 5,345,000 | 12,445,000 | (8,760,000) | 537,000 | 140,450,000 | 9.61% |
| 2001 | 6,508,000 | 8,169,000 | (9,845,000) | 75,000 | 145,357,000 | 5.88% |
| 2002 | 6,882,000 | 3,903,000 | (10,621,000) | - | 145,521,000 | 2.72% |
| 2003 | 7,156,000 | 18,193,000 | (11,560,000) | - | 159,310,000 | 12.69% |
| 2004 | 7,808,000 | 20,492,000 | (12,961,000) | - | 174,649,000 | 13.07% |
| 2005 | 8,456,000 | 23,912,000 | (13,923,000) | - | 193,094,000 | 13.91% |
| 2006 | 8,689,000 | 23,350,000 | (15,014,000) | - | 210,119,000 | 12.29% |
| 2007 | 9,289,000 | 8,507,000 | (16,008,000) | - | 211,907,000 | 4.11% |
| 2008 | 9,819,000 | (28,369,000) | (17,193,000) | - | 176,164,000 | (13.62%) |
| 2009 | 10,910,000 | 28,720,000 | (18,244,000) | 145,000,000 | 342,550,000 | 11.72% |
| 2010 | 11,118,000 | 41,632,000 | (18,830,000) | - | 376,470,000 | 12.29% |
| 2011 | 11,932,000 | (7,253,000) | (20,267,000) | - | 360,882,000 | (1.95%) |
| Total | <u>\$203,806,203</u> | <u>\$297,073,591</u> | <u>\$(298,235,878)</u> | <u>\$158,238,084</u> | | |

6. ANALYSIS

The financial position of the Account as at December 31, 2011 can be reproduced if the amount available to finance future superannuation adjustments as at December 31, 2010 is adjusted to recognize the various changes in the financial position which occurred during 2011. This procedure is demonstrated in the following schedule on both a going concern and solvency test basis:

| Going Concern | | | |
|--------------------------------------|-----------------------|------------------------|----------------------|
| 2011 Operation | Assets | Liabilities & Reserves | Amount Available |
| Opening Balance | \$ 376,470,000 | \$ 328,284,044 | \$ 48,185,956 |
| Contributions/2011 Indexing | 11,932,000 | 29,503,100 | (17,571,100) |
| Special Allocations | - | - | - |
| Amortization | - | (7,630,400) | 7,630,400 |
| Expected Interest | 20,476,600 | 7,699,100 | 12,777,500 |
| Investment Experience Gain/(Loss) | (27,729,600) | - | (27,729,600) |
| Benefit Experience Gain/(Loss) | (20,267,000) | (21,224,205) | 957,205 |
| Asset Smoothing Adjustment | - | (20,636,358) | 20,636,358 |
| Assumptions (Generational Mortality) | - | 352,978 | (352,978) |
| Closing Balance | <u>\$ 360,882,000</u> | <u>\$ 316,348,259</u> | <u>\$ 44,533,741</u> |

| Solvency Test | | | |
|------------------------------------|-----------------------|------------------------|-----------------------|
| 2011 Operation | Assets | Liabilities & Reserves | Amount Available |
| Opening Balance | \$ 376,470,000 | \$ 190,925,658 | \$ 185,544,342 |
| Contributions/2011 Indexing | 11,932,000 | 31,899,121 | (19,967,121) |
| Special Allocations | - | - | - |
| Amortization | - | - | - |
| Expected Interest | 16,679,200 | 9,258,000 | 7,421,200 |
| Investment Experience Gain/(Loss) | (23,932,200) | - | (23,932,200) |
| Benefit Experience Gain/(Loss) | (20,267,000) | (21,224,205) | 957,205 |
| Asset Smoothing Adjustment | - | - | - |
| Assumptions (Interest & Mortality) | - | 22,810,570 | (22,810,570) |
| Closing Balance | <u>\$ 360,882,000</u> | <u>\$ 233,669,144</u> | <u>\$ 127,212,856</u> |

Pursuant to the Standards of the Canadian Institute of Actuaries (CIA) it is now required to disclose the incremental cost in the next year on a hypothetical wind-up/solvency basis.

This incremental cost is estimated to be equal to \$32,954,982 as at December 31, 2011. This cost in essence reflects the present value of the estimated increase in solvency liabilities in the next twelve months, plus the actual benefit payments for one year.

7. NOTES

Note 1: ASSET SMOOTHING ADJUSTMENT AS AT DECEMBER 31, 2011

| Year End | Closing Assets | Net Investment Income | Rate of Return | | Investment Experience Gain/(Loss) | Unamortized Portion of Investment Experience | |
|-------------|-------------------|-----------------------------|----------------|---------|--------------------------------------|---|-----------------|
| | | | Net | Assumed | | Gain/(Loss) | |
| | | | (%) | (%) | | (%) | \$ |
| 2007 | 211,907,000 | 8,507,000 | 4.11 | 6.00 | (3,898,570) | - | - |
| 2008 | 176,164,000 | (28,369,000) | (13.62) | 6.00 | (40,862,200) | 20 | (8,172,440) |
| 2009 | 342,550,000 | 28,720,000 | 11.72 | 6.00 | 14,020,180 | 40 | 5,608,072 |
| 2010 | 376,470,000 | 41,632,000 | 12.29 | 5.50 | 23,003,830 | 60 | 13,802,298 |
| 2011 | 360,882,000 | (7,253,000) | (1.95) | 5.50 | (27,729,638) | 80 | (22,183,710) |
| | | | | | | Calculated: | \$ (10,945,780) |
| | | | | | | +/- 10% Cap: | 36,088,200 |
| | | | | | | Use: | \$ (10,945,780) |

The asset write-down/(asset write-up) is to be capped at +/-10% of the market value of assets.

Note 2: MEMBERSHIP

The following membership information used in this Report was provided by the staff of the Board. (*The 17,615 is less than the pensions in payment found in the Annual Report to Members as it includes some retirements in early 2012 which were included at the time of the preparation of the valuation file):

| Pensions in Payment | 2011 | 2010 |
|---------------------|----------|--------|
| Pensioners | 14,835 | 13,984 |
| Survivors | 2,780 | 2,702 |
| Total | 17,615 * | 16,686 |

Note 3: ACTUARIAL ASSUMPTIONS - GOING CONCERN

The mortality rates have changed from the UP2020 mortality table to the UPI994 Generational mortality table and the liability interest rate continues at 5.50% per year. The difference between the Actuarial Valuation for the Basic Fund and this Account Valuation is largely attributable to the differences in the demographic profile and asset mix supporting the liabilities of the Account versus those of the Basic Fund. A provision of 3% of liabilities has been made for possible future changes in assumptions.

Note 4: ACTUARIAL ASSUMPTIONS - SOLVENCY TEST

The Canadian Institute of Actuaries prescribes the mortality and interest rates to be used to perform the solvency test (hypothetical wind-up) calculations. For this Report, the prescribed mortality table is the UPI994 Generational mortality table (previously UP2020) and the prescribed liability interest rate is 3.31% (previously 4.48%) per year as a December 31, 2011. No future indexing is available unless the Account has a solvency excess.

Note 5: **PARTIAL SUPERANNUATION ADJUSTMENTS EFFECTIVE
JULY 1, 2012**

| Pension <u>Commencement</u> | <u>Percentage of Full Adjustment Payable</u> | |
|--------------------------------|--|---------------------------------------|
| | <u>Partial</u> | Interim <u>(delayed 12 months)</u> |
| ≤ December, 2010 | 100.00 % | - |
| January, 2011 | 91.67 | - |
| February, 2011 | 83.33 | - |
| March, 2011 | 75.00 | - |
| April, 2011 | 66.67 | - |
| May, 2011 | 58.33 | - |
| June, 2011 | 50.00 | - |
| July, 2011 | - | 45.83 % |
| August, 2011 | - | 41.67 |
| September, 2011 | - | 37.50 |
| October, 2011 | - | 33.33 |
| November, 2011 | - | 29.17 |
| December, 2011 | - | 25.00 |
| January, 2012 | - | 20.83 |
| February, 2012 | - | 16.67 |
| March, 2012 | - | 12.50 |
| April, 2012 | - | 8.33 |
| May, 2012 | - | 4.17 |

Beneficiaries receive 2/3 of the superannuation adjustment otherwise paid.

Note 6: 1986 SURPLUS TRANSFER AMORTIZATION

The initial unamortized amount of \$23,632,210 is the portion of the \$31,788,810 surplus as at December 31, 1986 transferred to the Account that is not immediately available to provide superannuation adjustments. It is to be made available or amortized gradually as new retirements occur after 1986.

1986 SURPLUS TRANSFER AMORTIZATION

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] |
|-------------------|----------|---------------|--------------|--------------|---------------|---------|-----------|
| | Calendar | Unamortized | Interest | Amount | Unamortized | Nominal | Amortized |
| | Year | Amount | Credit | Amortized | Amount | Rate of | Amount |
| | | Jan. 1 | Dec. 31 | Dec. 31 | Dec. 31 | Return | (%) |
| | | | | | | (%) | (%) |
| HISTORICAL | | | | | | | |
| 0 | 1986 | \$ 31,788,810 | - | \$ 8,156,600 | \$ 23,632,210 | - | - |
| 1 | 1987 | 23,632,210 | - | 1,079,992 | 22,552,218 | - | 4.57 |
| 2 | 1988 | 22,552,218 | - | 1,127,611 | 21,424,607 | - | 5.00 |
| 3 | 1989 | 21,424,607 | \$ 2,586,803 | 1,241,390 | 22,770,020 | 11.73 | 5.17 |
| 4 | 1990 | 22,770,020 | 2,778,183 | 1,382,158 | 24,166,045 | 11.85 | 5.41 |
| 5 | 1991 | 24,166,045 | 2,744,116 | 1,480,059 | 25,430,102 | 11.05 | 5.50 |
| 6 | 1992 | 25,430,102 | 2,748,283 | 1,617,439 | 26,560,946 | 10.53 | 5.74 |
| 7 | 1993 | 26,560,946 | 2,602,697 | 1,778,982 | 27,384,661 | 9.57 | 6.10 |
| 8 | 1994 | 27,384,661 | 2,485,743 | 1,926,641 | 27,943,763 | 8.88 | 6.45 |
| 9 | 1995 | 27,943,763 | 2,542,331 | 2,060,860 | 28,425,234 | 8.90 | 6.76 |
| 10 | 1996 | 28,425,234 | 2,511,954 | 2,168,697 | 28,768,491 | 8.65 | 7.01 |
| 11 | 1997 | 21,654,446 | 1,875,227 | 1,752,961 | 21,776,712 | 8.48 | 7.45 * |
| 12 | 1998 | 21,776,712 | 1,856,314 | 1,911,912 | 21,721,114 | 8.35 | 8.09 |
| 13 | 1999 | 21,721,114 | 1,684,425 | 1,959,044 | 21,446,495 | 7.61 | 8.37 |
| 14 | 2000 | 21,446,495 | 2,110,524 | 2,025,904 | 21,531,115 | 9.61 | 8.60 |
| 15 | 2001 | 21,531,115 | 1,284,640 | 2,032,884 | 20,782,871 | 5.88 | 8.91 |
| 16 | 2002 | 20,782,871 | 569,138 | 2,062,604 | 19,289,405 | 2.72 | 9.66 |
| 17 | 2003 | 19,289,405 | 2,525,483 | 2,327,649 | 19,487,239 | 12.69 | 10.67 |
| 18 | 2004 | 19,487,239 | 2,630,205 | 2,494,848 | 19,622,596 | 13.07 | 11.28 |
| 19 | 2005 | 19,622,596 | 2,824,422 | 2,680,174 | 19,766,844 | 13.91 | 11.94 |
| 20 | 2006 | 19,766,844 | 2,503,987 | 2,901,889 | 19,368,942 | 12.29 | 13.03 |
| 21 | 2007 | 19,368,942 | 796,064 | 2,845,282 | 17,319,724 | 4.11 | 14.11 |
| 22 | 2008 | 17,319,724 | (2,358,946) | 2,395,221 | 12,565,557 | (13.62) | 16.01 |
| 23 | 2009 | 12,565,557 | 1,472,683 | 2,389,308 | 11,648,932 | 11.72 | 17.02 |
| 24 | 2010 | 11,648,932 | 1,431,654 | 2,527,169 | 10,553,417 | 12.29 | 19.32 |
| 25 | 2011 | 10,553,417 | (205,792) | 2,259,921 | 8,087,704 | (1.95) | 21.84 |
| 26 | 2012 | 8,087,704 | 444,824 | 2,210,778 | 6,321,750 | 5.50 | 25.91 |
| 27 | 2013 | 6,321,750 | 347,696 | 2,113,547 | 4,555,899 | 5.50 | 31.69 |
| 28 | 2014 | 4,555,899 | 250,574 | 1,858,663 | 2,947,810 | 5.50 | 38.67 |
| 29 | 2015 | 2,947,810 | 162,130 | 1,690,252 | 1,419,688 | 5.50 | 54.35 |
| 30 | 2016 | 1,419,688 | 78,083 | 1,497,771 | - | 5.50 | 100.00 |

* Remaining surplus reduced by \$7,114,045 as a result of transfer to MTS.

Note 7: 2004 SURPLUS TRANSFER AMORTIZATION

The initial unamortized amount of \$121,945,754 is the portion of the \$145,000,000 surplus as at December 31, 2004 transferred to the Account that is not immediately available to provide superannuation adjustments. It is to be made available or amortized gradually as new retirements occur after 2009.

2004 SURPLUS TRANSFER AMORTIZATION

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] |
|----|----------|----------------|-------------|------------|----------------|---------|-----------|
| | Calendar | Unamortized | Interest | Amount | Unamortized | Nominal | Amortized |
| | Year | Amount | Credit | Amortized | Amount | Rate of | Amount |
| | | Jan. 1 | Dec. 31 | Dec. 31 | Dec. 31 | Return | Amount |
| | | | | | | (%) | (%) |
| 0 | 2004 | \$ 145,000,000 | \$ - | \$ - | \$ 145,000,000 | - | - |
| 1 | 2005 | 145,000,000 | - | - | 145,000,000 | - | 3.33 |
| 2 | 2006 | 145,000,000 | - | - | 145,000,000 | - | 3.45 |
| 3 | 2007 | 145,000,000 | - | - | 145,000,000 | - | 3.57 |
| 4 | 2008 | 145,000,000 | - | - | 145,000,000 | - | 3.70 |
| 5 | 2009 | 145,000,000 | 3,538,435 | 26,592,681 | 121,945,754 | 2.44 * | 3.85 |
| 6 | 2010 | 121,945,754 | 14,987,133 | 5,477,315 | 131,455,572 | 12.29 | 4.00 |
| 7 | 2011 | 131,455,572 | (2,563,384) | 5,370,508 | 123,521,680 | (1.95) | 4.17 |
| 8 | 2012 | 123,521,680 | 6,793,692 | 5,665,886 | 124,649,486 | 5.50 | 4.35 |
| 9 | 2013 | 124,649,486 | 6,855,722 | 5,977,509 | 125,527,699 | 5.50 | 4.55 |
| 10 | 2014 | 125,527,699 | 6,904,023 | 6,306,272 | 126,125,450 | 5.50 | 4.76 |
| 11 | 2015 | 94,936,392 | 5,221,502 | 5,007,895 | 95,149,999 | 5.50 | 5.00 |
| 12 | 2016 | 95,149,999 | 5,233,250 | 5,283,329 | 95,099,920 | 5.50 | 5.26 |
| 13 | 2017 | 95,099,920 | 5,230,496 | 5,573,912 | 94,756,504 | 5.50 | 5.56 |
| 14 | 2018 | 94,756,504 | 5,211,608 | 5,880,477 | 94,087,635 | 5.50 | 5.88 |
| 15 | 2019 | 94,087,635 | 5,174,820 | 6,203,903 | 93,058,552 | 5.50 | 6.25 |
| 16 | 2020 | 93,058,552 | 5,118,220 | 6,545,118 | 91,631,654 | 5.50 | 6.67 |
| 17 | 2021 | 91,631,654 | 5,039,741 | 6,905,100 | 89,766,295 | 5.50 | 7.14 |
| 18 | 2022 | 89,766,295 | 4,937,146 | 7,284,880 | 87,418,561 | 5.50 | 7.69 |
| 19 | 2023 | 87,418,561 | 4,808,021 | 7,685,548 | 84,541,034 | 5.50 | 8.33 |
| 20 | 2024 | 84,541,034 | 4,649,757 | 8,108,254 | 81,082,537 | 5.50 | 9.09 |
| 21 | 2025 | 81,082,537 | 4,459,540 | 8,554,208 | 76,987,869 | 5.50 | 10.00 |
| 22 | 2026 | 76,987,869 | 4,234,333 | 9,024,689 | 72,197,513 | 5.50 | 11.11 |
| 23 | 2027 | 72,197,513 | 3,970,863 | 9,521,047 | 66,647,329 | 5.50 | 12.50 |
| 24 | 2028 | 66,647,329 | 3,665,603 | 10,044,705 | 60,268,227 | 5.50 | 14.29 |
| 25 | 2029 | 60,268,227 | 3,314,752 | 10,597,163 | 52,985,816 | 5.50 | 16.67 |
| 26 | 2030 | 52,985,816 | 2,914,220 | 11,180,007 | 44,720,029 | 5.50 | 20.00 |
| 27 | 2031 | 44,720,029 | 2,459,602 | 11,794,908 | 35,384,723 | 5.50 | 25.00 |
| 28 | 2032 | 35,384,723 | 1,946,160 | 12,443,628 | 24,887,255 | 5.50 | 33.33 |
| 29 | 2033 | 24,887,255 | 1,368,799 | 13,128,027 | 13,128,027 | 5.50 | 50.00 |
| 30 | 2034 | 13,128,027 | 722,041 | 13,850,068 | - | 5.50 | 100.00 |

* Interest was credited from mid October 2009 to December 31, 2009.