UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 11-K

ANNUAL REPORT PURSUANT TO SECTION 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

(Mark One:)

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 [NO FEE REQUIRED].

For the fiscal year ended December 31, 2003

OR

□ TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 [NO FEE REQUIRED].

For the transition period from ______ to _____

Commission file number 001-14195

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

AMERICAN TOWER RETIREMENT SAVINGS PLAN

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

AMERICAN TOWER CORPORATION

116 Huntington Avenue Boston, Massachusetts 02116

AMERICAN TOWER RETIREMENT SAVINGS PLAN TABLE OF CONTENTS

| | Page |
|---|------|
| REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM | 1 |
| FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2003 AND 2002: | |
| Statements of Net Assets Available for Benefits | 2 |
| Statements of Changes in Net Assets Available for Benefits | 3 |
| Notes to Financial Statements | 4-7 |
| SUPPLEMENTAL SCHEDULE AS OF DECEMBER 31, 2003: | |
| <u>Form 5500, Schedule H, Part IV, Line 4i—Schedule of Assets (Held at End of Year)</u> | 8 |
| <u>SIGNATURE</u> | 9 |
| EXHIBIT INDEX | 10 |

All other schedules required by Section 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have been omitted because they are not applicable.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Plan Administrator and Participants of the

American Tower Retirement Savings Plan

116 Huntington Avenue Boston, Massachusetts

We have audited the accompanying statements of net assets available for benefits of the American Tower Retirement Savings Plan (the "Plan") as of December 31, 2003 and 2002 and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2003 and 2002 and the changes in net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule listed in the Table of Contents is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This schedule is the responsibility of the Plan's management. Such supplemental schedule has been subjected to the auditing procedures applied in our audit of the basic 2003 financial statements and, in our opinion, is fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

/s/ Deloitte & Touche LLP

Boston, Massachusetts June 22, 2004

AMERICAN TOWER RETIREMENT SAVINGS PLAN

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS DECEMBER 31, 2003 AND 2002

| | 2003 | 2002 |
|-----------------------------------|--------------|--------------|
| ASSETS: | | |
| Investments: | | |
| Mutual funds | \$34,764,722 | \$28,905,713 |
| Common stock | 2,832,584 | 1,076,608 |
| Participant loans | 645,599 | 853,685 |
| | | |
| Total investments | 38,242,905 | 30,836,006 |
| Contributions receivable: | | |
| Participant | 29,714 | 42,719 |
| Employer | 144,179 | 211,747 |
| | | |
| Total contributions receivable | 173,893 | 254,466 |
| | | |
| NET ASSETS AVAILABLE FOR BENEFITS | \$38,416,798 | \$31,090,472 |
| | | |

See notes to financial statements.

AMERICAN TOWER RETIREMENT SAVINGS PLAN

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS YEARS ENDED DECEMBER 31, 2003 AND 2002

| | 2003 | 2002 |
|--|--------------|----------------|
| Investment activity: | | |
| Net appreciation (depreciation) in fair value of investments | \$ 7,913,913 | \$ (6,687,337) |
| Dividends and interest | 602,009 | 572,635 |
| Not investment activity | 0 515 022 | (6 114 702) |
| Net investment activity | 8,515,922 | (6,114,702) |
| Contributions: | | |
| Participant | 5,741,874 | 9,132,800 |
| Employer | 1,614,706 | 1,753,419 |
| Total contributions | 7,356,580 | 10,886,219 |
| DEDUCTIONS: | | |
| Benefits paid to participants | (7,642,114) | (9,225,504) |
| Administrative expenses | (132,670) | (134,799) |
| Total deductions | (7,774,784) | (9,360,303) |
| NET INCREASE (DECREASE) BEFORE TRANSFER | 8,097,718 | (4,588,786) |
| TRANSFER OF ASSETS FROM PLAN | (771,392) | |
| NET INCREASE (DECREASE) | 7,326,326 | (4,588,786) |
| NET ASSETS AVAILABLE FOR BENEFITS: | | |
| Beginning of year | 31,090,472 | 35,679,258 |
| End of year | \$38,416,798 | \$31,090,472 |
| 5 | · , - , | . , , |

See notes to financial statements.

1. DESCRIPTION OF THE PLAN

The following description of the American Tower Retirement Savings Plan (the "Plan") provides general information only. Participants should refer to the summary Plan description and the Plan document for a more complete description of the Plan's provisions.

General Information – The Plan is a defined contribution plan available to substantially all employees of American Tower Corporation (the "Company" or the "Plan Sponsor") and its subsidiaries. The Company's Benefits Committee, as Plan Administrator, controls and manages the operation and administration of the Plan. Fidelity Management Trust Company ("Fidelity") serves as the trustee of the Plan. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 ("ERISA").

Participant Contributions – Prior to June 30, 2002, participants could contribute up to 15% of pretax annual compensation, as defined in the Plan, subject to limits set by the Internal Revenue Code (the "Code"). Effective July 1, 2002, the annual percentage maximum for employee pretax contributions was raised from 15% of eligible compensation to 25% of eligible compensation. In addition, participants age 50 and older may make catch-up contributions. Participants may also contribute amounts representing distributions from other qualified plans.

Employer Contributions – Each year, the Company may make discretionary matching contributions to be determined annually based on a percentage of an employee's pretax contributions. Matching contributions are subject to a maximum of 5% of an employee's eligible compensation contributed to the Plan. For 2003 and 2002, the matching contribution was 35% of the first 5% contributed by a participant. The Company may also make annual discretionary profit sharing contributions in an amount to be determined at year end by the Company's Board of Directors. No discretionary profit sharing contributions were made in 2003 and 2002. (See note 9.)

Participant Accounts – Individual accounts are maintained for each participant. Each participant's account is credited with the participant's contributions, Company matching contributions, allocations of Company discretionary profit sharing contributions and allocations of Plan earnings and charged with withdrawals and an allocation of Plan losses. Allocations are based on each participant's earnings or account balances, as defined. The benefit to which a participant is entitled is the benefit that can be provided from his or her vested account.

Vesting – Participants are immediately vested in their contributions plus actual earnings thereon. Vesting in the Company matching contribution portion of their accounts (plus actual earnings thereon) occurs at a rate of 25% per year, beginning after one year of service, until a participant becomes fully vested. Vesting in the Company's profit sharing portion of participants' accounts (plus actual earnings thereon) occurs according to a five-year graded schedule, beginning with 20% after one year of service.

Payment of Benefits – Total or partial cash distributions from the Plan are permitted upon a participant's attainment of age 59½, termination of employment, retirement, death or disability. In addition, withdrawals are also permitted for certain events that result in financial hardship to the participant.

Forfeitures – Unvested Company contributions and earnings thereon that have been forfeited may be applied against administrative expenses of the Plan and to reduce Company contributions. At December 31, 2003 and 2002, forfeited, non-vested participant accounts totaled approximately \$781,000 and \$572,000, respectively. During the years ended December 31, 2003 and 2002, Plan administrative expenses were reduced by approximately \$118,000 from forfeited, non-vested participant accounts.

Investments – Participants direct the investment of their contributions and Company matching contributions into various investment options offered by the Plan. The Plan currently offers several mutual funds and American Tower Corporation Common Stock as investment options for participants.

Participant Loans – Participants may borrow from their accounts a minimum of \$1,000. The maximum amount is the lesser of one-half of a participant's vested account balance or \$50,000, reduced by the highest outstanding loan balance in a participant's account during the prior twelve-month period. Loans are fully secured by the participant's vested interest in his or her account. Loan terms generally range from one to five years with terms extending to 10 years for loans associated with the purchase of a primary residence. Participant loans bear interest at a rate commensurate with local prevailing rates at the date of the loan. The applicable interest rates for outstanding loans ranged from 4.00% to 9.50% as of December 31, 2003. Principal and interest are paid ratably through payroll deductions.

Transfer of Assets from the Plan – In March 2003, certain participant accounts totaling \$771,392 were transferred out of the Plan into a newly created plan for employees of Maritime Telecommunications Network, a former indirect subsidiary of the Company, which was sold in February 2003.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Method of Accounting – The accompanying financial statements have been prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America.

Use of Estimates – The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results may differ from those estimates and assumptions.

The Plan invests in American Tower Corporation common stock and mutual funds which hold securities including U.S. government securities, corporate debt instruments and corporate stock. Investment securities are, in general, exposed to various risks such as interest rate, credit and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in values of investment securities will occur in the near term and those such changes could materially affect the amounts reported in the financial statements.

Investment Valuation and Income Recognition – The Plan's investments are stated at fair value. Quoted market prices are used to value common stock investments. Shares of mutual funds are valued at quoted market prices which represent the net asset value of shares held by the Plan at year end. Participant loans are stated at cost, which approximates fair value. Purchases and sales of securities are recorded on a trade-date basis. Dividends are recorded on the ex-dividend date. Interest is recorded when earned.

Expenses – All expenses are paid by either the Plan or the Company, as provided in the Plan document.

Payment of Benefits - Benefits are recorded when paid.

3. INVESTMENTS

Investments representing five percent or more of the Plan's net assets available for benefits as of December 31 are as follows:

| | 2003 | 2002 |
|---|-------------|-------------|
| Fidelity Growth Company Fund | \$6,196,916 | \$4,249,731 |
| Fidelity Growth & Income Portfolio | 5,152,402 | 4,081,109 |
| Fidelity Magellan Fund | 5,096,953 | 4,073,037 |
| Spartan U.S. Equity Index Fund | 3,820,009 | 2,517,920 |
| Fidelity Retirement Money Market Portfolio | 3,673,433 | 4,455,015 |
| Fidelity U.S. Bond Index Fund | 3,471,138 | 4,808,238 |
| Fidelity Worldwide Fund | 2,928,630 | 2,032,668 |
| Fidelity Puritan Fund | 2,386,572 | 1,958,437 |
| American Tower Corporation Class A common stock | 2,832,584 | |

During the years ended December 31, 2003 and 2002, the Plan's investments (including gains and losses on investments bought and sold, as well as held, during the year) appreciated (depreciated) in value as follows:

| | 2003 | 2002 |
|---|-------------|---------------|
| Mutual funds: | | |
| Fidelity Growth Company Fund | \$1,766,692 | \$(2,346,650) |
| Fidelity Growth & Income Portfolio | 744,787 | (1,019,113) |
| Fidelity Magellan Fund | 968,363 | (1,339,332) |
| Spartan U.S. Equity Index Fund | 802,342 | (821,881) |
| Fidelity U.S. Bond Index Fund | (10,385) | 145,675 |
| Fidelity Worldwide Fund | 778,765 | (505,355) |
| Fidelity Puritan Fund | 340,545 | (261,201) |
| Fidelity Low-Priced Stock Fund | 247,744 | (44,508) |
| Fidelity Mid-Cap Stock Fund | 79,944 | (9,792) |
| Fidelity Freedom 2030 Fund | 17,284 | 248 |
| Fidelity Freedom Income Fund | 2,575 | 60 |
| Fidelity Freedom 2010 Fund | 6,864 | (607) |
| Fidelity Freedom 2020 Fund | 16,032 | (2,865) |
| Fidelity Freedom 2000 Fund | 2,229 | (51) |
| Fidelity Freedom 2040 Fund | 4,453 | (683) |
| American Tower Corporation Class A common Stock | 2,145,679 | (481,282) |
| Net appreciation (depreciation) | \$7,913,913 | \$(6,687,337) |

4. PLAN TERMINATION AND AMENDMENTS

Although it has not expressed any intention to do so, the Board of Directors of the Company has the right, under the Plan, to suspend its contributions at any time and to terminate the Plan subject to the provisions set forth in ERISA. In the event of termination of the Plan, or upon complete or partial discontinuance of contributions, the accounts of each affected participant shall become fully vested. A significant number of employee terminations may result in a partial Plan termination. In the event that a partial Plan termination occurs, the affected terminated participants' accounts will become fully vested.

The Board of Directors of the Company also has the right to amend the Plan, in whole or in part, subject to the provisions of ERISA. During 2002, the Plan was amended to (i) increase the deferral



contribution limit from 15% to 25% of a participant's eligible compensation as of July 1, 2002; (ii) add a catch-up contribution feature for participants ages 50 and older, effective January 1, 2002; and (iii) change the vesting percentage from 20% per year to 25% per year (beginning after one year of service) until a participant becomes fully vested, effective for participants who perform a minimum of one hour of service on or after January 1, 2002. There were no amendments during the 2003 plan year. (See note 9.)

5. FEDERAL INCOME TAX STATUS

The Internal Revenue Service has determined and informed the Company by a letter dated October 2, 2003 that the Plan and related trust were designed in accordance with the applicable regulations of the Internal Revenue Code. Therefore, no provision for income taxes has been included in the Plan's financial statements.

6. RELATED PARTY TRANSACTIONS

The Plan's investments as of December 31, 2003 and 2002 include shares of mutual funds held in trust by Fidelity, the Plan's trustee. Fees paid by the Plan to Fidelity for the years ended December 31, 2003 and 2002 were \$132,670 and \$134,799, respectively. As of December 31, 2003, FMR Corp. and its various affiliates, including Fidelity, owned approximately 31.2 million shares of Class A common stock of the Company (based on FMR Corp.'s Schedule 13-G filed on February 17, 2004).

At December 31, 2003 and 2002, the Plan held 261,791 and 304,988 shares, respectively, of Class A common stock of the Company, with a cost basis of \$1,660,787 and \$1,801,279, respectively. The Company did not make dividend payments during the years ended December 31, 2003 and 2002.

7. VOLUNTARY COMPLIANCE RESOLUTION

In July 2001, the Company filed an application for a compliance statement from the Internal Revenue Service under the Voluntary Compliance Resolution program ("VCR"). By letter dated July 24, 2003, the Company was informed by the Internal Revenue Service that its application for a compliance statement was accepted, and the Plan will not be subject to disqualification. As of December 31, 2003, the Company has made all required corrections.

8. RECONCILIATION OF FINANCIAL STATEMENTS TO FORM 5500

The following is a reconciliation of net assets available for benefits in the accompanying financial statements to amounts reported in the Company's Form 5500 at December 31, 2003 and 2002:

| | 2003 | 2002 |
|---|---------------------------|---------------------------|
| Net assets available for benefits per the financial statements Contributions receivable | \$38,416,798 (173,893) | \$31,090,472 (254,466) |
| Net assets available for benefits per the Form 5500 | \$38,242,905 | \$30,836,006 |

The following is a reconciliation of contributions in the accompanying financial statements to amounts reported in the Company's Form 5500 for the years ended December 31, 2003 and 2002:

| | 2003 | 2002 |
|--|-------------|--------------|
| Contributions per the financial statements | \$7,356,580 | \$10,886,219 |
| Decrease in contributions receivable | 80,573 | 210,083 |
| Contributions per the Form 5500 | \$7,437,153 | \$11,096,302 |

9. SUBSEQUENT EVENTS

Subsequent to year end, the Company's Benefits Committee approved an amendment to the Plan to increase the employer matching contribution from 35% of the first 5% contributed by each participant to 50% of the first 6% contributed by each participant. The amendment will be effective July 1, 2004.

AMERICAN TOWER RETIREMENT SAVINGS PLAN FORM 5500, SCHEDULE H, PART IV, LINE 4i—SCHEDULE OF ASSETS (HELD AT END OF YEAR) DECEMBER 31, 2003

| a) | b) Identity of Issue, Borrower, Lessor or Similar Party | c) Description of Investment Including Maturity Date, d) Interest Rate, Collateral, Par or Maturity Value Cost** | e) Current Value |
|----|---|---|---------------------|
| * | Fidelity Investments | Growth Company Fund | \$ 6,196,916 |
| * | Fidelity Investments | Growth & Income Portfolio | 5,152,402 |
| * | Fidelity Investments | Magellan Fund | 5,096,953 |
| * | Fidelity Investments | Spartan U.S. Equity Index Fund | 3,820,009 |
| * | Fidelity Investments | Retirement Money Market Portfolio | 3,673,433 |
| * | Fidelity Investments | U.S. Bond Index Fund | 3,471,138 |
| * | Fidelity Investments | Worldwide Fund | 2,928,630 |
| * | Fidelity Investments | Puritan Fund | 2,386,572 |
| * | Fidelity Investments | Low-Priced Stock Fund | 1,197,575 |
| * | Fidelity Investments | Mid-Cap Stock Fund | 449,611 |
| * | Fidelity Investments | Freedom 2030 Fund | 93,514 |
| * | Fidelity Investments | Freedom Income Fund | 84,229 |
| * | Fidelity Investments | Freedom 2010 Fund | 82,235 |
| * | Fidelity Investments | Freedom 2020 Fund | 73,773 |
| * | Fidelity Investments | Freedom 2000 Fund | 31,664 |
| * | Fidelity Investments | Freedom 2040 Fund | 26,068 |
| * | American Tower Corporation | Class A common stock | 2,832,584 |
| * | Participants | Participant loans with various interest rates from 4.00% to 9.50% and various maturity dates through 2013 | 645,599 |
| | Total | | \$38,242,905 |
| | | | |

* Represents a party-in-interest to the Plan.

** Cost information is not required for participant directed investments and therefore has not been included.

The Plan. Pursuant to the requirements of the Securities Exchange Act of 1934, the Benefits Committee of American Tower Corporation, as Plan Administrator, has duly caused this annual report to be signed on behalf of the undersigned hereunto duly authorized, in the city of Boston, Massachusetts on the 28th day of June 2004.

AMERICAN TOWER RETIREMENT SAVINGS PLAN

By: /s/ AILEEN T. TORRANCE

Aileen T. Torrance Member, Benefits Committee

The following exhibits are filed as part of this Annual Report on Form 11-K.

<u>Exhibit Index</u>

| Exhibit Number | Description |
|-------------------|----------------------------------|
| 23.1 | Consent of Deloitte & Touche LLP |

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-41226 of American Tower Corporation on Form S-8 of our report dated June 22, 2004, appearing in this Annual Report on Form 11-K of American Tower Retirement Savings Plan for the year ended December 31, 2003.

/s/ Deloitte & Touche LLP

Boston, Massachusetts June 22, 2004