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

	SECURITIES EXCHANGE ACT OF 1954
(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, 2004
	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. I	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

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

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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, 2004 and 2003, 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 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. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. 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, 2004 and 2003, 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 schedules listed in the Table of Contents are presented for the purpose of additional analysis and are not a required part of the basic financial statements but are 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. These schedules are the responsibility of the Plan's management. Such supplemental schedules have been subjected to the auditing procedures applied in our audit of the basic 2004 financial statements and, in our opinion, are 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 28, 2005

AMERICAN TOWER RETIREMENT SAVINGS PLAN

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS DECEMBER 31, 2004 AND 2003

	2004	2003
ASSETS:		
Participant-directed Investments:		
Mutual funds	\$ 34,317,054	\$ 34,764,722
Common stock	3,930,011	2,832,584
Participant loans	599,819	645,599
		-
Total investments	38,846,884	38,242,905
Contributions receivable:		
Participant	9,515	144,179
Employer	2,057	29,714
Total contributions receivable	11,572	173,893
NET ASSETS AVAILABLE FOR BENEFITS	\$ 38,858,456	\$ 38,416,798

See notes to financial statements.

AMERICAN TOWER RETIREMENT SAVINGS PLAN

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS YEARS ENDED DECEMBER 31, 2004 AND 2003

	2004	2003
INVESTMENT ACTIVITY:		
Net appreciation in fair value of investments	\$ 4,135,167	\$ 7,913,913
Dividends and interest	729,053	602,009
Net investment activity	4,864,220	8,515,922
CONTENION		
CONTRIBUTIONS:		
Participant	4,231,067	5,741,874
Employer	369,771	1,614,706
Total contributions	4,600,838	7,356,580
Total Contributions	4,000,636	7,330,360
DEDUCTIONS:		
Benefits paid to participants	(8,869,142)	(7,642,114)
Administrative expenses	(154,258)	(132,670)
Total deductions	(9,023,400)	(7,774,784)
NET INCREASE BEFORE TRANSFER	441,658	8,097,718
TRANSFER OF ASSETS FROM PLAN		(771,392)
NET INCREASE	441,658	7,326,326
NET ASSETS AVAILABLE FOR BENEFITS:		
Beginning of year	38,416,798	31,090,472
End of year	\$38,858,456	\$38,416,798

See notes to financial statements.

AMERICAN TOWER RETIREMENT SAVINGS PLAN

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—Participants may contribute up to 25% of pretax annual compensation, as defined in the Plan, subject to limits set by the Internal Revenue Code (the "Code"). 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. Under the Plan, the Company matching contribution for periods prior to June 30, 2004 was 35% up to a maximum of 5% of a participant's contributions. Effective July 1, 2004, the plan was amended to increase the Company match to 50% up to a maximum of 6% of a participant's contributions. 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 2004 and 2003.

Participant Accounts—Individual accounts are maintained for each participant. Each participant's account is credited with the participant's contributions, Company matching contributions and 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 participants' 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, 2004 and 2003, forfeited, nonvested participant accounts totaled approximately \$88,000 and \$781,000, respectively. During the year ended December 31, 2004, \$725,000 of Company contributions were funded from the forfeiture account. During the years ended December 31, 2004 and 2003, Plan administrative expenses were reduced by approximately \$143,000 and \$118,000 from forfeited, nonvested participant accounts.

Investments—Participants direct the investment of their contributions and Company contributions into various investment options offered by the Plan. The Plan currently offers several mutual funds and American Tower Corporation Class A 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, 2004 and 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 Class A common stock and mutual funds that hold investment 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 that 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 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 exdividend date. Interest is recorded when earned.

Management fees and operating expenses charged to the Plan for investments in the mutual funds are deducted from income earned on a daily basis and are not separately reflected. Consequently, management fees and operating expenses are reflected as a reduction of investment return for such investments.

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.

Reclassifications—Certain reclassifications have been made to the 2003 financial statements to conform with the 2004 presentation.

3. INVESTMENTS

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

	2004	2003
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Fidelity Growth Company Fund	\$6,183,045	\$6,196,916
Fidelity Growth & Income Portfolio	5,279,947	5,152,402
Fidelity Magellan Fund	4,928,683	5,096,953
Spartan U.S. Equity Index Fund	4,302,181	3,820,009
Fidelity Worldwide Fund	2,829,837	2,928,630
Fidelity Retirement Money Market Portfolio	2,587,802	3,673,433
Fidelity Puritan Fund	2,380,649	2,386,572
Fidelity U.S. Bond Index Fund	2,287,175	3,471,138
Fidelity Low Priced Stock Fund	2,111,503	
American Tower Corporation Class A common stock	3,930,011	2,832,584

During the years ended December 31, 2004 and 2003, 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:

	2004	2003
Fidelity Growth Company Fund	\$ 668,816	\$1,766,692
Fidelity Growth & Income Portfolio	360,098	744,787
Spartan U.S. Equity Index Fund	343,850	802,342
Fidelity Worldwide Fund	295,416	778,765
Fidelity Magellan Fund	294,396	968,363
Fidelity Low-Priced Stock Fund	249,133	247,744
Fidelity Puritan Fund	64,635	340,545
Fidelity Mid-Cap Stock Fund	42,057	79,944
Fidelity Freedom 2030 Fund	13,415	17,284
Fidelity Freedom 2020 Fund	8,048	16,032
Fidelity Freedom 2040 Fund	7,796	4,453
Fidelity Value Fund	5,932	
Fidelity Freedom 2010 Fund	1,583	6,864
Fidelity Freedom Income Fund	1,403	2,575
Fidelity Freedom 2000 Fund	1,100	2,229
Fidelity Freedom 2035 Fund	287	
Fidelity Freedom 2025 Fund	105	
Fidelity Freedom 2015 Fund	10	
Fidelity Freedom 2005 Fund	9	
Fidelity U.S. Bond Index Fund	(26,198)	(10,385)
AIM Basic Value A Fund	1,270	
American Tower Corporation Class A common stock	1,802,006	2,145,679
Net appreciation	\$4,135,167	\$7,913,913

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. During 2004, the Company sold certain non-core divisions, which consequently resulted in a partial plan termination. The partial plan termination resulted in the affected participant accounts becoming 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. See Note 1 for a description of an amendment to the Plan to increase the Company matching contribution effective July 1, 2004. There were no amendments during the 2003 Plan year.

5. FEDERAL INCOME TAX STATUS

The Internal Revenue Service (the "IRS") 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 Code. The Plan has been amended since receiving the determination letter; however, the Company and the plan administrator believe that the Plan is currently designed and operated in compliance with the applicable requirements of the Code and the Plan and related trust continue to be tax-exempt. 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, 2004 and 2003 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, 2004 and 2003 were \$154,258 and \$132,670, respectively. FMR Corp. and its various affiliates, including Fidelity, owned approximately 29.8 million and 31.2 million shares of Class A common stock of the Company as of December 31, 2004 and 2003, respectively (based on FMR Corp.'s Schedule 13-G filed on February 14, 2005 and February 17, 2004, respectively).

At December 31, 2004 and 2003, the Plan held 213,588 and 261,791 shares, respectively, of Class A common stock of the Company, with a cost basis of \$1,451,051 and \$1,660,787, respectively. The Company did not make dividend payments during the years ended December 31, 2004 and 2003.

7. VOLUNTARY COMPLIANCE RESOLUTION

In July 2001, the Company filed an application for a compliance statement from the IRS under the Voluntary Compliance Resolution program ("VCR"). By a letter dated July 24, 2003, the Company was informed by the IRS 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 made all required corrections in connection with the compliance statement.

8. NONEXEMPT PARTY-IN-INTEREST TRANSACTIONS

The Company remitted the July 23, 2004 participant contributions of \$329 to the trustee on June 8, 2005 and the November 19, 2004 participant contributions of \$4,125 to the trustee on December 23, 2004, which are later than required by D.O.L. Regulation 2510.3-102. The Company is in the process of filing Form 5330 with the IRS and will pay the required excise tax on the transaction. In addition, participant accounts will be credited with the amount of investment income which would have been earned had the participant contribution been remitted on a timely basis.

9. RECONCILIATION OF FINANCIAL STATEMENTS TO FORM 5500

The following is a reconciliation of net assets available for benefits per financial statements to amounts reported in the Plan's Form 5500 at December 31, 2004 and 2003:

	2004	2003
	 -	
Net assets available for benefits per the financial statements	\$38,858,456	\$38,416,798
Contributions receivable	(11,572)	(173,893)
Net assets available for benefits per the Form 5500	\$38,846,884	\$38,242,905

The following is a reconciliation of contributions per the financial statements to contributions reported in the Plan's Form 5500 for the years ended December 31, 2004 and 2003:

	2004	2003
Contributions per the financial statements	\$4,600,838	\$7,356,580
Decrease in contributions receivable	162,321	80,573
Contributions per the Form 5500	\$4,763,159	\$7,437,153

AMERICAN TOWER RETIREMENT SAVINGS PLAN

FORM 5500—SCHEDULE H, PART IV LINE 4i—SCHEDULE OF ASSETS (HELD AT END OF YEAR) **DECEMBER 31, 2004**

a)	b) Identity of Issue, Borrower, Lessor or Similar Party	c) Description of Investment Including Maturity Date, Interest Rate, Collateral, Par or Maturity Value d)	Cost**	e) Current Value
*	Fidelity Investments	Growth Company Fund		\$ 6,183,045
*	Fidelity Investments	Growth & Income Portfolio		5,279,947
*	Fidelity Investments	Magellan Fund		4,928,683
*	Fidelity Investments	Spartan U.S. Equity Index Fund		4,302,181
*	Fidelity Investments	Worldwide Fund		2,829,837
*	Fidelity Investments	Retirement Money Market Portfolio		2,587,802
*	Fidelity Investments	Puritan Fund		2,380,649
*	Fidelity Investments	U.S Bond Index Fund		2,287,175
*	Fidelity Investments	Low-Priced Stock Fund		2,111,503
*	Fidelity Investments	Mid-Cap Stock Fund		571,598
*	Fidelity Investments	Value Fund		239,617
*	Fidelity Investments	Freedom 2030 Fund		191,781
*	Fidelity Investments	Freedom 2020 Fund		118,481
*	Fidelity Investments	Freedom 2040 Fund		109,126
*	Fidelity Investments	Freedom Income Fund		76,513
*	Fidelity Investments	Freedom 2010 Fund		46,357
*	Fidelity Investments	Freedom 2000 Fund		39,555
*	Fidelity Investments	Freedom 2005 Fund		9,695
*	Fidelity Investments	Freedom 2035 Fund		5,897
*	Fidelity Investments	Freedom 2015 Fund		1,816
*	Fidelity Investments	Freedom 2025 Fund		145
	AIM Investments	Basic Value Fund Class A		15,651
*	American Tower Corporation	Class A common stock		3,930,011
*	Participants	Participant loans with various interest rates from 4.00% to 9.50% and various maturity dates through 2013		599,819
		5.50% and various maturity dates through 2015		
	Total			\$ 38,846,884

Represents a party-in-interest to the Plan. Cost information is not required for participant-directed investments and therefore has not been included.

AMERICAN TOWER RETIREMENT SAVINGS PLAN

FORM 5500, SCHEDULE H, PART IV QUESTION 4a—DELINQUENT PARTICIPANT CONTRIBUTIONS YEAR ENDED DECEMBER 31, 2004

Question 4a "Did the employer fail to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102", was answered "yes".

Identity of Party Involved	Relationship to Plan, Employer, or Other Party-in-Interest	Description of Transactions	Amount
American Tower Corporation	Employer/ Plan Sponsor	Participant contributions for employees were not funded within the time period prescribed by D.O.L Regulation 2510.3-102.	
		The July 23, 2004 participant contribution was deposited on June 8, 2005.	\$ 329
		The November 19, 2004 participant contribution was deposited on December 23, 2004.	4,125

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 29th day of June 2005.

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.

Exhibit Index

Exhibit Number	Description
23.1	Consent of Independent Registered Public Accounting Firm - 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 28, 2005, appearing in this Annual Report on Form 11-K of American Tower Retirement Savings Plan for the year ended December 31, 2004.

/s/ DELOITTE & TOUCHE LLP

Boston, Massachusetts June 29, 2005