

AETRIUM INCORPORATED

NOTICE OF ANNUAL MEETING OF SHAREHOLDERS

To Be Held May 21, 2008

The 2008 Annual Meeting of the Shareholders of Aetrium Incorporated, a Minnesota corporation, will be held at Aetrium's corporate headquarters located at 2350 Helen Street, North St. Paul, Minnesota, beginning at 4:00 p.m., local time, on May 21, 2008, for the following purposes:

1. To elect five (5) persons to serve as directors until the next Annual Meeting or until their respective successors are elected and qualified; and
2. To transact such other business as may properly come before the Annual Meeting.

The record date for determining the shareholders who are entitled to notice of and to vote at the Annual Meeting, and any adjournments thereof, is the close of business on March 31, 2008.

You are cordially invited to attend the Annual Meeting. If you do not plan to attend the Annual Meeting in person, please be sure you are represented at the Annual Meeting by completing, signing, dating and promptly returning the enclosed proxy card in the envelope provided, which requires no postage if mailed within the United States.

By Order of the Board of Directors



Douglas L. Hemer
Chief Administrative Officer and Secretary

April 7, 2008
North St. Paul, Minnesota

AETRIUM INCORPORATED
2350 Helen Street
North St. Paul, Minnesota 55109
(651) 770-2000

PROXY STATEMENT
FOR ANNUAL MEETING OF SHAREHOLDERS
To Be Held May 21, 2008

INTRODUCTION

The 2008 Annual Meeting of the Shareholders of Aetrium Incorporated, a Minnesota corporation, will be held at Aetrium's corporate headquarters located at 2350 Helen Street, North St. Paul, Minnesota 55109, beginning at 4:00 p.m., local time, on May 21, 2008.

A proxy card is enclosed for your use. **YOU ARE SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS TO SIGN AND RETURN THE PROXY CARD IN THE ACCOMPANYING ENVELOPE.** No postage is required if mailed within the United States. We will pay the costs related to soliciting proxies, including preparing, assembling and mailing the proxies and soliciting material, as well as the cost of forwarding such material to the beneficial owners of our common stock. Our directors, officers and regular employees may, without compensation other than their regular compensation, solicit proxies by telephone or personal conversation. We may reimburse brokerage firms and others for expenses in forwarding proxy materials to the beneficial owners of our common stock.

Any shareholder giving a proxy may revoke it at any time before its use at the Annual Meeting either by:

- giving written notice of revocation to our Secretary before the Annual Meeting or at the Annual Meeting before the proxy is used;
- submitting a duly executed proxy with a later date to our Secretary; or
- appearing at the Annual Meeting and voting his or her stock in person.

Proxies will be voted as specified by shareholders. Proxies that are signed by shareholders, but lack any such specification, will be voted in favor of the nominees for directors listed in this Proxy Statement. Abstention from the proposal set forth in the Notice of Meeting is treated as a vote against such proposal. Broker non-votes on such proposal (*i.e.*, a card returned by a broker because voting instructions have not been received and the broker has no discretionary authority to vote) are treated as shares with respect to which voting power has been withheld by the beneficial holders of those shares and, therefore, as shares not entitled to vote on such proposal.

THE BOARD RECOMMENDS THAT THE SHAREHOLDERS VOTE FOR THE NOMINEES FOR DIRECTORS LISTED IN THIS PROXY STATEMENT.

We expect that this Proxy Statement and the proxy card will be first mailed to shareholders on or about April 7, 2008.

The terms "we," "us," "our," or the "company" or similar terms refer to Aetrium Incorporated.

HOUSEHOLDING OF ANNUAL MEETING MATERIALS

Some banks, brokers and other nominee record holders may be participating in the practice of “householding” proxy statements and annual reports. This means that only one copy of our Proxy Statement or Annual Report to Shareholders may have been sent to multiple shareholders who share the same address. We will promptly deliver a separate copy of either document to any shareholder upon written or oral request to our Investor Relations Department, Aetrium Incorporated, 2350 Helen Street, North St. Paul, Minnesota 55109, telephone: (651) 770-2000. Any shareholder who wants to receive separate copies of our Proxy Statement or Annual Report to Shareholders in the future, or any shareholder who is receiving multiple copies and would like to receive only one copy per household, should contact the shareholder’s bank, broker, or other nominee record holder, or the shareholder may contact us at the above address and phone number.

OUTSTANDING SHARES

Only record holders of our common stock at the close of business on March 31, 2008 will be entitled to vote at the Annual Meeting. On March 31, 2008, we had 10,581,722 outstanding shares of common stock, each such share entitling the holder thereof to one vote on each matter to be voted on at the Annual Meeting. The holders of a majority of the shares (5,290,862 shares) entitled to vote and represented in person or by proxy at the Annual Meeting will constitute a quorum for the transaction of business at the Annual Meeting. In general, shares of common stock represented by a properly signed and returned proxy card will be counted as shares present and entitled to vote at the Annual Meeting for the purposes of determining a quorum, without regard to whether the card reflects an abstention (or is left blank) or reflects a broker non-vote on a matter. Holders of shares of common stock are not entitled to cumulate voting rights.

ELECTION OF DIRECTORS

Nomination

Our Bylaws provide that the number of directors to constitute our board of directors will be at least one or such other number as may be determined by our board or our shareholders. At our 2007 Annual Meeting, five directors were elected. Our board has unanimously recommended and determined to nominate the same five directors to be elected at the 2008 Annual Meeting. The process used to nominate these directors is discussed below under the caption “Additional Information About the Board and Its Committees—Board Member Nomination Process.” Directors elected at the 2008 Annual Meeting will hold office until the next regular meeting of shareholders or until their successors are duly elected and qualified.

All of the nominees for directors are currently members of our board and have consented to serve as directors, if elected. Each nominee will be elected by a plurality of the votes cast. The five director nominees receiving the highest vote totals will be elected. Shares represented by proxies that contain instructions to “withhold” voting authority on one or more nominees will not affect the election of nominees receiving a plurality of the votes cast. Our board recommends a vote **FOR** the election of each of the nominees listed in this Proxy Statement. Our board intends to vote the proxies solicited on its behalf (other than proxies in which the vote is withheld) for the election of each of the nominees as directors. If prior to the Annual Meeting our board should learn that any of the nominees will be unable to serve by reason of death, incapacity or other unexpected occurrence, the proxies will be cast for another nominee to be designated by our board to fill such vacancy, unless a shareholder indicates to the contrary on his or her proxy card. Alternatively, the proxies may, at our board’s discretion, be voted for

such fewer nominees as results from such death, incapacity or other unexpected occurrence. Our board has no reason to believe that any of the nominees will be unable to serve.

Information About Nominees

The following table sets forth certain information as of March 1, 2008, which has been furnished to us by the persons who have been nominated by our board to serve as directors for the ensuing year.

<u>Nominees for Election</u>	<u>Age</u>	<u>Principal Occupation</u>	<u>Director Since</u>
Joseph C. Levesque	63	Chairman of the Board, President and Chief Executive Officer of Aetrium Incorporated	1986
Darnell L. Boehm	59	Principal of Darnell L. Boehm & Associates	1986
Terrence W. Glarner	64	President of West Concord Ventures, Inc.	1990
Andrew J. Greenshields	70	President of Pathfinder Venture Capital Funds	1986
Douglas L. Hemer	61	Chief Administrative Officer and Secretary of Aetrium Incorporated	1986

Other Information About Nominees

Joseph C. Levesque has served as our President, Chief Executive Officer and Chairman of our board since 1986. From 1973 to 1986, Mr. Levesque served in various capacities and most recently as Executive Vice President of Micro Component Technology, Inc., a manufacturer of integrated circuit testers and test handlers.

Darnell L. Boehm served as our Chief Financial Officer and Secretary from 1986 until May 2000, and has served as one of our directors since 1986. From December 1994 until July 1995, Mr. Boehm had also assumed executive management responsibilities for our former Poway, California operations. Mr. Boehm is currently the principal of Darnell L. Boehm & Associates, a management consulting firm. Mr. Boehm is also a director of Rochester Medical Corporation, a publicly held company, and Versa Companies, a privately held company. Mr. Boehm serves on the compensation committee and is chairman of the audit committee of Rochester Medical Corporation. The entire board of Versa Companies acts as its audit and compensation committees.

Terrence W. Glarner has served as one of our directors since March 1990. Mr. Glarner was initially elected as a director to our board because of his affiliation with North Star Ventures, Inc. and Norwest Venture Capital, which were significant shareholders of Aetrium at the time. Since February 1993, Mr. Glarner has been President of West Concord Ventures, Inc., a venture capital company, and has been a consultant to North Star Ventures, Inc. and Norwest Venture Capital. Mr. Glarner is also a director of FSI International, Inc. and NVE Corporation, both of which are publicly held companies, and Bremer Financial Corp., a privately held company. Mr. Glarner also serves on the audit and compensation committees of FSI International, Inc. and NVE Corporation and on the audit committee of Bremer Financial Corp.

Andrew J. Greenshields served as one of our directors from July 1984 to October 1985, and has continuously served as one of our directors since October 1986. Mr. Greenshields was initially elected as a director to our board because of his affiliation with Pathfinder Venture Capital Funds, an investment company, which was a significant shareholder of Aetrium at the time of Mr. Greenshields' election to the board both in 1984 and 1986. Mr. Greenshields has been President of Pathfinder Venture Capital Funds

since September 1980. Mr. Greenshields also has been a general partner of Spell Capital Partners since November 1997 and president and a director of Waterside Property Management Co. since January 2007.

Douglas L. Hemer has served as one of our directors since 1986, and has served as our Secretary since May 2000 and as our Chief Administrative Officer since March 2001. He served as our Group Vice President from August 1998 to March 2001, as the President of our former Poway, California operations from February 1997 to August 1998 and as our Chief Administrative Officer from May 1996 until February 1997. Mr. Hemer was a partner in the law firm of Oppenheimer Wolff & Donnelly LLP for more than 15 years before joining Aetrium. Mr. Hemer is also a director of Versa Companies, a privately held company.

Additional Information About the Board and Its Committees

General Information. Our board of directors manages our business and affairs. Except for Messrs. Levesque and Hemer, all of our directors are independent directors, as defined by current Nasdaq listing standards and the rules and regulations of the SEC. Our independent directors hold meetings, referred to as “executive sessions,” at which only the independent directors are present on a regular basis and at least two times each year. During the fiscal year ended December 31, 2007, our independent directors held four executive sessions in addition to their participation in Audit Committee and Compensation Committee meetings.

Our board met or took action in writing eight times during the fiscal year ended December 31, 2007. Our board established and maintains an Audit Committee and a Compensation Committee. Each of our directors is expected to make a reasonable effort to attend all meetings of the board, applicable committee meetings and our Annual Meeting of Shareholders. All of our directors attended 75% or more of the aggregate meetings of our board and all such committees on which they served during the fiscal year ended December 31, 2007. All of our directors attended our 2007 Annual Meeting.

Audit Committee. Our Audit Committee was established in accordance with section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended, for the purpose of overseeing accounting and financial reporting processes and audits of our financial statements. The functions of the Audit Committee include reviewing our financial statements, overseeing the financial reporting and disclosures prepared by management, making recommendations regarding our financial controls, and conferring with our outside independent registered public accounting firm. In addition, the Audit Committee is responsible for the appointment, compensation, retention and oversight of our outside independent registered public accounting firm. The Audit Committee met or took action in writing seven times during the fiscal year ended December 31, 2007. Messrs. Boehm, Glarner and Greenshields are the current members of the Audit Committee, of which Mr. Boehm is Chairman.

Compensation Committee. The responsibilities of the Compensation Committee include approving the compensation for our executive officers and setting the terms of and grants of awards under our 1993 and 2003 Stock Incentive Plans. Our 1993 Stock Incentive Plan is referred to in this Proxy Statement as our “1993 Plan,” and our 2003 Stock Incentive Plan is referred to in this Proxy Statement as our “2003 Plan.” The Compensation Committee met or took action in writing seven times during the fiscal year ended December 31, 2007. Messrs. Boehm, Glarner and Greenshields are the current members of the Compensation Committee.

Board Member Nomination Process. We have not established a nominating committee. Our board has determined that because of the relatively small size of the board and the value of all directors participating in the process of nominations for board membership, it is in the company's best interests for the entire board to exercise the responsibilities of nominations for board membership. In lieu of a charter, the board has adopted principles, objectives and requirements in connection with the nomination process that set forth guidelines and procedures for the selection and evaluation of candidates for nomination as board members. We have posted these principles, objectives and requirements on our website at www.aetrium.com and refer to them as our nominating procedures. Our board reviews these principles, objectives and requirements periodically to determine if a more formal policy should be adopted.

In evaluating individual candidates for nomination for board membership, the board will seek out individuals who have, at a minimum, the following attributes:

- High moral and ethical character;
- Readiness to share constructive ideas, make independent decisions, work proactively and constructively with other board members, and devote the time and energy necessary for comprehensive and timely completion of all board member responsibilities; and
- Adequate education, training and business experience, including knowledge of our business and the semiconductor and semiconductor equipment industries, to understand and make well informed and well reasoned judgments on all matters within the scope of the board's responsibilities.

In making nominations for board membership, the board will consider recommendations from a variety of sources, including from shareholders. All recommended candidates will be evaluated under the same criteria. All candidates selected as a nominee for director must be approved by a majority of the independent directors of our board.

Shareholders wishing to submit a recommendation for board membership may do so by sending a letter to the board, c/o Corporate Secretary, at Aetrium's address listed above, which is clearly identified as a "Director Nominee Recommendation" and contains the following information:

- Name of the candidate and a brief biographical sketch and resume of the candidate;
- Contact information for the candidate and the shareholder making the recommendation;
- A document evidencing the candidate's willingness to serve as a director if elected; and
- A signed statement as to the submitting shareholder's current status as a shareholder and the number of shares currently held.

Shareholders who wish to make a recommendation for a nominee to be included in our proxy statement for our 2009 Annual Meeting of Shareholders must submit their recommendation to our board by December 8, 2008 to assure time for collection and meaningful consideration and evaluation of information regarding the nominees by our board.

Shareholder Communications with Our Board. Any shareholder wishing to send communications to our board may send a letter to the board, c/o Corporate Secretary, at Aetrium's address listed above. Any such communication must be clearly labeled "Security Holder-Board Communication" and must include a signed statement as to the submitting shareholder's current status as

a shareholder and the number of shares currently held. All communications that are reasonably related to Aetrium or its business will be directed by the Corporate Secretary to the board, or particular board members, not later than the next regularly scheduled meeting of the board. The Corporate Secretary has the authority to discard or disregard or take other appropriate actions with respect to any inappropriate communications, such as unduly hostile, illegal or threatening communications.

Compensation of Directors

The following table sets forth the cash and non-cash compensation for our fiscal year ended December 31, 2007 awarded to or earned by our directors other than our named executive officers.

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)	Option Awards (\$) (1)	Non-Equity Incentive Plan Compensation (\$)	Change in Pension Value and Nonqualified Deferred Compensation Earnings	All Other Compensation (\$) (2)	Total (\$)
Darnell L. Boehm	—	—	13,636	—	—	11,826	25,462
Terrence W. Glarner	—	—	13,636	—	—	—	13,636
Andrew J. Greenshields	—	—	13,636	—	—	—	13,636

(1) Represents compensation costs recognized by us in fiscal year 2007 for option awards as determined pursuant to Statement of Financial Accounting Standards No. 123 (revised 2004), “Share-Based Payment” (SFAS 123R), but excludes any impact of assumed forfeiture rates. At December 31, 2007, there were options outstanding for 72,500, 80,000 and 80,000 shares of our common stock outstanding to Messrs. Boehm, Glarner and Greenshields, respectively.

(2) Represents premiums paid for Mr. Boehm and his family under our medical and dental group insurance programs.

Directors’ Fees. Our directors receive no cash compensation for their services as members of our board, although their out-of-pocket expenses incurred on our behalf are reimbursed.

Option Grants. All of our directors are eligible for grants of options under our 2003 Plan. As disclosed in the Executive Compensation and Other Benefits section below, in April 2007 and pursuant to the 2003 Plan, we granted to Messrs. Levesque and Hemer five-year options to purchase 50,000 shares of our common stock. Also in April 2007, we granted to Messrs. Boehm, Glarner and Greenshields, as non-employee directors, five-year options to purchase 20,000 shares of common stock each. The exercise price of each of their options is \$3.87 per share, the fair market value of the common stock on the date of the grant. All of the options granted vest ratably over forty-eight months from date of grant.

Although our board is not obligated to do so, it currently anticipates that it will grant non-statutory stock options to purchase 30,000 shares of common stock to non-employee directors upon their initial election to our board at an exercise price equal to the fair market value of the common stock on the date of grant.

**SECURITY OWNERSHIP OF CERTAIN
BENEFICIAL OWNERS AND MANAGEMENT**

The table below sets forth information regarding the beneficial ownership of our common stock as of March 1, 2008, unless otherwise noted, by (a) each shareholder who we know owns beneficially more than 5% of our outstanding common stock, (b) each of our directors, nominees for directors and executive officers named in the “Summary Compensation Table” below, and (c) all of our executive officers and directors as a group. The address for all our executive officers and directors is 2350 Helen Street, North St. Paul, Minnesota 55109.

<u>Name of Beneficial Owner</u>	<u>Shares of Common Stock Beneficially Owned (1)</u>	
	<u>Amount</u>	<u>Percent of Class (2)</u>
Joseph C. Levesque	351,513 (3)	3.3%
Douglas L. Hemer	172,312 (4)	1.6%
Daniel M. Koch	169,303 (5)	1.6%
Darnell L. Boehm	119,375 (6)	1.1%
Terrence W. Glarner	89,705 (7)	*
Andrew J. Greenshields	91,875 (8)	*
Executive officers and directors as a group (12 persons)	1,393,821 (9)	12.1%

*Less than 1%.

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- (1) Shares not outstanding but deemed beneficially owned by virtue of the right of a person or member of a group to acquire them within 60 days of March 1, 2008 are treated as outstanding only when determining the amount and percent owned by such person or group. Unless otherwise noted, all of the shares shown are held by individuals or entities possessing sole voting and investment power with respect to such shares.
 - (2) Based on 10,546,361 shares of common stock outstanding as of March 1, 2008.
 - (3) Includes options to purchase 166,875 shares of common stock exercisable within 60 days. Also includes an aggregate of 6,400 shares held in educational trusts for Mr. Levesque’s grandchildren, of which he is the trustee.
 - (4) Includes options to purchase 128,958 shares of common stock exercisable within 60 days.
 - (5) Includes options to purchase 126,666 shares of common stock exercisable within 60 days.
 - (6) Includes options to purchase 49,375 shares of common stock exercisable within 60 days.
 - (7) Includes options to purchase 56,875 shares of common stock exercisable within 60 days.
 - (8) Includes options to purchase 56,875 shares of common stock exercisable within 60 days.
 - (9) Includes options to purchase 952,205 shares of common stock exercisable within 60 days. Also includes an aggregate of 6,400 shares held in educational trusts for Mr. Levesque’s grandchildren, of which he is the trustee.

EXECUTIVE COMPENSATION AND OTHER BENEFITS

Summary Compensation Table

The following table sets forth the cash and non-cash compensation for the fiscal years ended December 31, 2007 and December 31, 2006 awarded to or earned by our Chief Executive Officer and our two other most highly compensated executive officers whose total compensation exceeded \$100,000. The executive officers named in the chart below are referred to in this Proxy Statement as our “named executive officers.”

SUMMARY COMPENSATION TABLE

Name and Principal Position	Year	Salary (\$)	Bonus (\$) (2)	Stock Awards (\$)	Option Awards (\$) (1)	Non-Equity Incentive Plan Compensation (\$)	Change in Pension Value and Non-qualified Deferred Compensation Earnings (\$)	All Other Compensation (\$) (3)	Total (\$)
Joseph C. Levesque, President and Chief Executive Officer	2007	267,692	74,750	—	53,120	—	—	7,750	403,312
	2006	240,000	59,000	—	22,058	—	—	6,162	327,220
Douglas L. Hemer, Chief Administrative Officer and Secretary	2007	195,769	61,750	—	27,745	—	—	7,093	292,357
	2006	175,000	49,000	—	8,394	—	—	4,557	236,951
Daniel M. Koch, VP—Worldwide Sales	2007	152,308	61,750	—	25,208	—	—	21,081	260,347
	2006	135,000	48,000	—	6,507	—	—	23,038	212,545

- (1) Represents compensation costs recognized by us in fiscal years 2007 and 2006 for option awards as determined pursuant to SFAS 123R, but excludes any impact of assumed forfeiture rates. See Note 4 of “Notes to Consolidated Financial Statements” in our Annual Report on Form 10-K for the fiscal year ending December 31, 2007 for a discussion of the assumptions made by us in determining the grant date fair value and compensation costs of our equity awards.
- (2) Represents bonuses payable pursuant to our executive officer profit sharing program for fiscal years 2007 and 2006.
- (3) Represents amounts of matching contributions we made to the named executive officers’ respective 401(k) accounts. With respect to Mr. Koch, also includes bonuses of \$16,800 and \$19,100 in fiscal years 2007 and 2006, respectively, payable pursuant to our sales incentive program, which applies to certain personnel participating in sales and marketing activities.

Outstanding Equity Awards at Fiscal Year-End Table

The following table sets forth equity incentive plan awards for each named executive officer outstanding as of the end of our last completed fiscal year.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END—2007

Name	Option Awards					
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable		Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price (\$)	Option Expiration Date
Joseph C. Levesque	45,000	—		—	2.755	12/18/2008
	75,000	—		—	3.125	8/17/2010
	28,125	46,875	(1)	—	4.33	6/15/2011
	8,333	41,667	(2)	—	3.87	4/23/2012
Douglas L. Hemer	80,000	—		—	2.755	12/18/2008
	25,000	—		—	3.125	8/17/2010
	9,375	15,625	(3)	—	4.33	6/15/2011
	8,333	41,667	(2)	—	3.87	4/23/2012
Daniel M. Koch	85,000	—		—	2.755	12/18/2008
	20,000	—		—	3.125	8/17/2010
	7,500	12,500	(4)	—	4.33	6/15/2011
	8,333	41,667	(2)	—	3.87	4/23/2012

- (1) The stock option was granted on June 15, 2006. Assuming continued employment with us, 1562.5 shares become exercisable on the 15th day of January, 2008 and each month thereafter through June 15, 2010.
- (2) The stock option was granted on April 23, 2007. Assuming continued employment with us, 1041.7 shares become exercisable on the 23rd day of January, 2008 and each month thereafter through April 23, 2011.
- (3) The stock option was granted on June 15, 2006. Assuming continued employment with us, 520.8 shares become exercisable on the 15th day of January, 2008 and each month thereafter through June 15, 2010.
- (4) The stock option was granted on June 15, 2006. Assuming continued employment with us, 416.7 shares become exercisable on the 15th day of January, 2008 and each month thereafter through June 15, 2010.

Executive Compensation Program

Our executive compensation program has three principal components: base salary, equity based awards (historically these have been in the form of nonqualified stock options), and profit sharing bonuses. Our primary objective in determining base salaries is to provide a fair but conservative level of compensation to our executive management that can be sustained through a wide range of industry conditions without unduly and inappropriately burdening the company during lean conditions. Our primary objective in granting equity based awards is to provide appropriate incentive to our executive management to generate long term growth in the value of the company. Our primary objective in granting profit sharing bonuses is to reward executive management for their successes in generating profitability and positive cash flow. We believe that these three components to our executive compensation program

are complementary to each other and provide a balance of long term and short term incentives to management and operational flexibility to the company that best serves the interests of the company.

Base Salaries. Historically, base salaries for our executive management have been adjusted infrequently and typically as a result of changes in responsibilities. In setting and adjusting base salaries for our executive management, we take into account the potential impact of the individual on the company and corporate performance, the skills and experience required by the position, the individual performance and potential of the executive officer, and market data for comparable positions in companies in comparable industries and of comparable development, complexity and size. We believe base salaries for our executive management have provided fair but conservative minimum compensation relative to peer companies in our industry.

In April 2007, we adjusted the base salaries of our executive officers in accordance with these factors, adjusting the annual base salaries of Messrs. Levesque, Hemer and Koch to \$280,000, \$205,000 and \$160,000, respectively. Prior to that, base salaries for our Chief Executive Officer and Chief Administrative Officer had not been adjusted for over ten years, except that during the severe downturn in our industry in 2001-2003, their base salaries were reduced by 25% and 20% respectively, at their initiation.

Equity Based Awards. We have granted equity based awards under our 2003 and 1993 Plans periodically to achieve an appropriate balance of outstanding options to provide ongoing incentive to executive management to build value in the company over time. As indicated above, historically our equity based awards have been in the form of nonqualified stock options, and we have no current plans to grant other forms of equity based awards. The number of stock options we have granted to executives, including our Chief Executive Officer, has been based upon a number of factors, including base salary level and how such base salary level relates to those of other companies in our industry, the number of options previously granted, individual and corporate performance during the year, the number of options being granted to other executives, and management's recommendations. The Compensation Committee determines the number of options to be granted to an executive based upon its overall subjective assessment of these factors. There are no formulas, objective criteria or other established relationships between the factors taken into account and the number of options granted to the executive.

We typically grant options on dates we believe the market value of our stock is at relatively low levels to maximize the incentive offered by the stock option awards. The designated grant date for all options that have been granted has always been the date the award was made. We have had no historical practice of awarding options on dates near company public releases of material information, and it is our policy not to do so.

In April 2007 and pursuant to the 2003 Plan, we granted to Messrs. Levesque, Hemer and Koch five-year options to purchase 50,000 shares of our common stock. The exercise price of each of their options is \$3.87 per share, the fair market value of the common stock on the date of the grant. All of the options granted vest ratably over forty-eight months from date of grant.

Profit Sharing Bonuses. Under our executive officer profit sharing program, which the board adopted in 2004, the Compensation Committee may award up to an aggregate of 10% of our pre-tax operating income (before such awards) for the quarter as cash bonuses to our executive officers. Bonuses are awarded only for quarters in which we are profitable. The Compensation Committee determines aggregate bonuses to be awarded for a quarter based on its overall subjective assessment of cash flow availability and management's performance. The Compensation Committee determines the amount of each executive's bonus based upon its overall subjective assessment of the individual executive's

contributions to the success of our operations. There are no formulas, objective criteria or other established relationships between the factors taken into account and the amount of the bonuses awarded.

Sales Incentive Bonuses. Certain executive officers involved in supporting our sales and service efforts are included in our sales incentive plan under which they are paid daily rates for qualifying travel as bonuses in addition to their base salaries. The Compensation Committee reviews all bonuses under this program made to executive management and ratifies the bonuses as made in conformance with the program.

All bonuses paid to our named executive officers in 2007 under the profit sharing and sales incentive programs are reflected in the “Summary Compensation Table” above.

Potential Payments Upon Termination or Change-in-Control.

Effective as of April 1, 1986, we entered into an employment agreement with Mr. Levesque to serve as our President and Chief Executive Officer. This employment agreement has no stated term. The employment agreement provides that we will review Mr. Levesque’s performance and compensation package on an annual basis and make such adjustments to his compensation package as we deem appropriate. The employment agreement provides that Mr. Levesque may voluntarily terminate his employment with three months’ written notice to us. The employment agreement also provides that if Mr. Levesque’s employment is involuntarily terminated (including by reason of death or disability, but excluding for cause), we will pay Mr. Levesque six months’ salary as severance pay. Any severance pay provided to Mr. Levesque pursuant to the terms of this employment agreement will be made according to our regular payroll practices and policies.

Effective as of January 6, 2004, we entered into Change of Control Agreements with certain of our high-level executives, including all of the named executive officers, that provide severance pay and other benefits in the event of a change of control. The Agreements provide for severance payments of two times the executive’s annual base salary in the event the executive’s employment is terminated, either voluntarily with “good reason” or involuntarily, during the two-year period following a change in control. The salary continuation benefits are to be paid over twenty-four months following the date of employment termination according to our regular payroll practices and policies. An executive receiving severance payments is also entitled to reimbursement of the employer portion of group medical and group dental premiums under COBRA continuation coverage. The Agreements also provide for immediate vesting of all unvested options outstanding to the executive upon a change in control. Severance payments to Mr. Levesque under his Change of Control Agreement would be in lieu of any severance otherwise due Mr. Levesque under his employment agreement discussed above. In January 2008 the Agreements were amended to conform to Section 409A of the Internal Revenue Code.

For purposes of the Change of Control Agreements, a change of control would be deemed to have occurred upon:

- the sale or other transfer of all or substantially all of our assets;
- the approval by our shareholders of a liquidation or dissolution of the company;
- any person, other than a bona fide underwriter, becoming the owner of more than 40% of our outstanding shares of common stock;

- a merger, consolidation or exchange involving the company, but only if our shareholders prior to such transaction own less than 65% of the combined voting power of the surviving or acquiring entity following the transaction; or
- the current members of our board, or future members of our board who were approved by at least a majority of our current board, ceasing to constitute at least a majority of the board.

Compensation Committee

The Compensation Committee consists of Messrs Boehm, Glarner and Greenshields, each of whom is a non-employee director and is independent as defined under the Nasdaq listing standards and by the SEC. The Compensation Committee approves the compensation for our executive officers. With respect to all eligible recipients except members of the Compensation Committee, the Compensation Committee also administers our 1993 and 2003 Plans and determines the participants in the 2003 Plan and the amount, timing and other terms and conditions of awards under these Plans. The board as a whole exercises these responsibilities with respect to members of the Compensation Committee as eligible recipients under these Plans.

The Role of the Compensation Committee. The Compensation Committee operates under a written charter adopted by our board on February 21, 2007. We have posted our Compensation Committee Charter on our website at www.aetrium.com. Pursuant to the charter, the members of the Committee are appointed by the board and are to consist of at least three (3) members of the board, each of whom meet the independence requirements defined under the Nasdaq listing standards and by the SEC. The primary duties and responsibilities of the Compensation Committee are to:

- establish the compensation philosophy and policy for our executive officers;
- review and evaluate the performance of the President and Chief Executive Officer and other executive officers and approve their annual compensation packages;
- review and approve, or recommend to the full board, executive incentive compensation plans and stock based plans in which executive officers and members of the board are eligible to participate;
- supervise and oversee the administration of the 2003 and 1993 Plans;
- have sole authority to retain and terminate executive compensation consultants; and
- review and reassess periodically the adequacy of the Compensation Committee Charter.

There is no provision for the Compensation Committee to delegate any of its duties and responsibilities to any other persons. The Compensation Committee has not used any compensation consultants in determining or recommending the amount or form of executive compensation.

AUDIT COMMITTEE REPORT

Membership and Role of the Audit Committee

The current members of the Audit Committee are Messrs. Boehm, Glarner and Greenshields. Mr. Boehm serves as Chairman of the Audit Committee. All members of the Audit Committee are independent as defined under the Nasdaq listing standards and the rules and regulations of the SEC. The board has determined that all members of the Audit Committee are audit committee financial experts, as defined by the SEC, based on their past business experience.

The Audit Committee operates under a written charter adopted by our board on February 18, 2004 as our Amended and Restated Audit Committee Charter. In connection with the preparation of the materials for our 2008 Annual Meeting, the Audit Committee has determined that the Audit Committee charter is adequate and no material revisions need to be made to such charter. We have posted our Audit Committee charter on our website at www.aetrium.com. The primary function of the Audit Committee is to assist the board in fulfilling its oversight responsibilities by reviewing the financial information that will be provided to the shareholders and others, the systems of internal and disclosure controls that management and the board have established, and the audit process, and by overseeing our accounting and financial reporting processes, the audits of our financial statements, and our independent registered public accounting firm. The Audit Committee's primary duties and responsibilities are to:

- be directly responsible for the appointment, compensation, retention and oversight of the work of our independent registered public accounting firm;
- approve all engagements of our independent registered public accounting firm to render audit or non-audit services prior to such engagement, or pursuant to policies and procedures that are detailed as to the particular service and that do not include delegation of the Audit Committee's responsibilities to management;
- evaluate our quarterly financial performance as well as our compliance with laws and regulations;
- oversee management's establishment and enforcement of financial policies and business practices;
- review and determine approval of all related party transactions required to be described by us under SEC rules and regulations;
- establish procedures for the receipt, retention and treatment of complaints we receive regarding accounting, internal accounting controls or auditing matters, and for the confidential, anonymous submission by our employees of concerns regarding questionable accounting or auditing matters;
- investigate any matter brought to its attention within the scope of its duties; and
- provide an open avenue of communication among the independent registered public accounting firm, financial and senior management, counsel, internal audit personnel and our board.

All services provided by our independent registered public accounting firm, Grant Thornton LLP, are subject to pre-approval by our Audit Committee. The Audit Committee's pre-approval policies and

procedures are described below under the caption “Independent Registered Public Accounting Firms—Pre-Approval Policies and Procedures.”

Review of Our Audited Financial Statements for the Fiscal Year ended December 31, 2007

The Audit Committee has reviewed and discussed our audited financial statements for the fiscal year ended December 31, 2007 with management. The Audit Committee has discussed with Grant Thornton LLP, our independent registered public accounting firm, the matters required to be discussed by Statement on Auditing Standards Nos. 61, as amended (Communication with Audit Committees) and 90 (Audit Committee Communications).

The Audit Committee has also received the written disclosures and the letter from Grant Thornton LLP required by Independence Standards Board Standard No. 1 (Independence Discussion with Audit Committees) and the Audit Committee has discussed the independence of Grant Thornton LLP with that firm.

Based on the Audit Committee’s review and discussions noted above, the Audit Committee recommended to our board that our audited financial statements be included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2007 for filing with the SEC.

Audit Committee

Darnell L. Boehm (Chair)
Terrence W. Glarner
Andrew J. Greenshields

Notwithstanding anything to the contrary set forth in any of our previous or future filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, that might incorporate this Proxy Statement, in whole or in part, the Audit Committee Report will not be deemed to be incorporated by reference into any such filing.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRMS

Selection of Independent Registered Public Accounting Firm

On October 2, 2006, the Audit Committee engaged Grant Thornton LLP as our independent registered public accounting firm for the fiscal year ended December 31, 2006. PricewaterhouseCoopers LLP, our prior independent registered public accounting firm, was dismissed by the Audit Committee on October 2, 2006.

In connection with the interim period through October 2, 2006, there were no disagreements between us and PricewaterhouseCoopers LLP on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of PricewaterhouseCoopers LLP, would have caused PricewaterhouseCoopers LLP to make reference in connection with their opinion to the subject matter of the disagreement. There were no reportable events (as defined in Regulation S-K Item 304(a)(1)(v)) during the interim period through October 2, 2006.

We have selected Grant Thornton LLP as our independent registered public accounting firm for fiscal year 2008. We do not intend to request that the shareholders ratify this selection. We have requested and expect, however, one or more representatives of Grant Thornton LLP to be present at the Annual

Meeting. Such representatives will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

Pre-Approval Policies and Procedures

All services provided by our independent registered public accounting firms are subject to pre-approval by our Audit Committee. The Audit Committee has authorized each of its members to approve services by our independent registered public accounting firms in the event there is a need for such approval prior to the next full Audit Committee meeting. The Audit Committee has also adopted policies and procedures that are detailed as to the particular service and that do not include delegation of the Audit Committee's responsibilities to management under which management may engage our independent registered public accounting firms to render audit or non-audit services. Any interim approval given by an Audit Committee member and any such engagement by management must be reported to the Audit Committee no later than its next scheduled meeting. Before granting any approval, the Audit Committee (or a committee member if applicable) gives due consideration to whether approval of the proposed service will have a detrimental impact on the independence of the independent registered public accounting firm. The full Audit Committee pre-approved all services provided by Grant Thornton LLP and PricewaterhouseCoopers LLP in fiscal 2007 and 2006.

Audit and Non-Audit Fees

The following table presents aggregate fees billed for professional services rendered by Grant Thornton LLP, designated GT in the table, and PricewaterhouseCoopers LLP, designated PwC in the table, for fiscal years 2007 and 2006. Other than as set forth below, no other professional services were rendered or fees billed by Grant Thornton LLP or PricewaterhouseCoopers LLP during fiscal years 2007 or 2006.

<u>Services Rendered</u>	<u>2007 Fees</u>			<u>2006 Fees</u>		
	<u>GT</u>	<u>PwC</u>	<u>Total</u>	<u>GT</u>	<u>PwC</u>	<u>Total</u>
Audit Fees (1).....	\$113,785	\$ 25,258	\$139,043	\$ 85,000	\$ 37,527	\$122,527
Audit-Related Fees (2).....	3,975	—	3,975	—	15,537	15,537
Tax Fees (3).....	26,985	—	26,985	—	27,925	27,925
All Other Fees	—	—	—	—	—	—

- (1) These fees include the audits of our annual financial statements for fiscal years 2007 and 2006, the reviews of our financial statements included in our Quarterly Reports on Form 10-Q for fiscal years 2007 and 2006 and to services provided in connection with regulatory filings for those fiscal years.
- (2) These fees were related to consultations regarding Section 404 of the Sarbanes-Oxley Act of 2002 and to consultations regarding the transition from PricewaterhouseCoopers LLP to Grant Thornton LLP as our independent registered public accounting firm in 2006.
- (3) These fees were for the preparation of federal and state tax returns and tax advice.

CODE OF ETHICS

Effective February 18, 2004, the board formally adopted a Code of Business Conduct and Ethics, which covers a wide range of business practices and procedures and is intended to ensure to the greatest extent possible that Aetrium's business is conducted in a consistently legal and ethical manner. The Code is consistent with how we have always conducted our business and applies to all of our directors, officers and other employees, including our principal executive officer and principal financial and accounting officer. We have posted the Code on our website at www.aetrium.com. We intend to promptly disclose any grant of waivers from or amendments to a provision of the Code on our website following such amendment or waiver.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our directors and executive officers and all persons who beneficially own more than 10% of the outstanding shares of our common stock to file with the SEC initial reports of ownership and reports of changes in ownership of our common stock. Executive officers, directors and greater than 10% beneficial owners are also required to furnish us with copies of all Section 16(a) forms they file. Based upon a review of the copies of such reports furnished to us and written representations, we believe that for the year ended December 31, 2007, none of our directors, executive officers or beneficial owners of greater than 10% of our common stock failed to file on a timely basis the forms required by Section 16 of the Exchange Act, except that Timothy McMullen, one of our executive officers, was late in filing a Form 4 reporting the exercise of options in May 2007 due to a misinterpretation of reporting requirements by the company.

SHAREHOLDER PROPOSALS FOR 2008 ANNUAL MEETING

Shareholder proposals intended to be presented in our proxy materials relating to our next Annual Meeting of Shareholders must be received by us at our principal executive offices on or before December 8, 2008 and must satisfy the requirements of the proxy rules promulgated by the SEC.

A shareholder who wishes to make a proposal at our next Annual Meeting without including the proposal in our proxy materials must notify us by February 21, 2009. If a shareholder fails to give notice by this date, then the persons named as proxies in the proxy card solicited by us for the next Annual Meeting will have discretionary authority to vote on the proposal.

OTHER BUSINESS

We know of no business that will be presented for consideration at the Annual Meeting other than that described in this Proxy Statement. As to other business, if any, that may properly come before the Annual Meeting, it is intended that proxies solicited by our board will be voted in accordance with the judgment of the person or persons voting the proxies.

MISCELLANEOUS

WE WILL FURNISH, WITHOUT CHARGE, A COPY OF OUR ANNUAL REPORT ON FORM 10-K (EXCLUSIVE OF EXHIBITS) FOR THE FISCAL YEAR ENDED DECEMBER 31, 2007 TO EACH PERSON WHO WAS A SHAREHOLDER OF AETRIUM AS OF MARCH 31, 2008 UPON RECEIPT FROM ANY SUCH PERSON OF A WRITTEN REQUEST FOR SUCH AN ANNUAL REPORT. SUCH REQUEST SHOULD BE SENT TO: AETRIUM INCORPORATED, 2350 HELEN STREET, NORTH ST. PAUL, MINNESOTA 55109; ATTN.: SHAREHOLDER INFORMATION.

By Order of the Board of Directors

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

Joseph C. Levesque
*Chairman of the Board,
President and Chief Executive Officer*

April 7, 2008
North St. Paul, Minnesota

AETRIUM INCORPORATED

ANNUAL PROXY CARD

This Proxy is solicited by the Board of Directors

The undersigned hereby appoints JOSEPH C. LEVESQUE and DOUGLAS L. HEMER, and each of them, as Proxies, each with full power of substitution, and hereby authorizes each of them to represent and to vote, as designated below, all the shares of Common Stock of Aetrium Incorporated held of record by the undersigned on March 31, 2008 at the Annual Meeting of Shareholders to be held on May 21, 2008 or any postponement or adjournment thereof.

1. **ELECTION OF DIRECTORS.** The Board recommends a vote FOR the following nominees.

	<u>Name of Nominee</u>	<u>For</u>	<u>Withhold</u>
01	JOSEPH C. LEVESQUE	<input type="checkbox"/>	<input type="checkbox"/>
02	DARNELL L. BOEHM	<input type="checkbox"/>	<input type="checkbox"/>
03	TERRENCE W. GLARNER	<input type="checkbox"/>	<input type="checkbox"/>
04	ANDREW J. GREENSHIELDS	<input type="checkbox"/>	<input type="checkbox"/>
05	DOUGLAS L. HEMER	<input type="checkbox"/>	<input type="checkbox"/>

2. In their discretion, the Proxies are authorized to vote upon such other business as may properly come before the meeting.

This proxy, when properly executed, will be voted in the manner directed herein by the undersigned shareholder. If no direction is made, this proxy will be voted FOR all nominees named in Proposal 1 above. Please sign exactly as name appears below. When shares are held by joint tenants, both should sign. When signing as attorney, executor, administrator, trustee or guardian, please give full title as such. If a corporation, please sign in full corporate name by President or other authorized officer. If a partnership, please sign in partnership name by authorized person.

Dated: _____, 2008

Signature

Signature if held jointly

PLEASE MARK, SIGN, DATE AND RETURN THIS PROXY CARD PROMPTLY USING THE ENCLOSED ENVELOPE, WHICH REQUIRES NO POSTAGE IF MAILED IN THE UNITED STATES.