UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A INFORMATION

PROXY STATEMENT PURSUANT TO SECTION 14(a) OF THE SECURITIES EXCHANGE ACT OF 1934

Filed by the Registrant \square

Filed by a Party other than the Registrant \Box

Check the appropriate box:

Preliminary Proxy Statement

- □ Confidential, for Use of Commission Only (as permitted by Rule 14a-6(e)(2))
- ☑ Definitive Proxy Statement
- Definitive Additional Materials
- □ Soliciting Material under Rule 14a-12

Mitcham Industries, Inc.

(Name of Registrant as Specified in its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- ☑ No fee required.
- □ Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
 - (1) Title of each class of securities to which transaction applies:
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(1) Amount Previously Paid:

- (2) Form, Schedule or Registration Statement No.:
- (3) Filing Party:

(4) Date Filed:

MITCHAM INDUSTRIES, INC. 8141 SH 75 SOUTH P.O. BOX 1175 HUNTSVILLE, TEXAS 77342-1175

NOTICE OF ANNUAL MEETING OF SHAREHOLDERS TO BE HELD JULY 24, 2014

June 9, 2014

To our Shareholders:

We will hold the Annual Meeting of Shareholders of Mitcham Industries, Inc., a Texas corporation, on Thursday, July 24, 2014, at our principal executive offices, which are located at 8141 SH 75 South, Huntsville, Texas 77340 at 9:00 a.m., local time. At the Annual Meeting, shareholders will be asked to:

- 1. Elect six individuals to serve on our Board of Directors until the next annual meeting of shareholders, each until their respective successors are duly elected and qualified;
- 2. Approve, on an advisory basis, Named Executive Officer compensation;
- 3. Ratify the selection by the Audit Committee of our Board of Directors of Hein & Associates LLP as our independent registered public accounting firm for the fiscal year ending January 31, 2015; and
- 4. Transact such other business as may properly come before the meeting and any adjournment or postponement thereof.

Our Board of Directors has established the close of business on May 27, 2014 as the record date for determining the shareholders entitled to notice of and to vote at the Annual Meeting of Shareholders to be held July 24, 2014, and any adjournment or postponement thereof.

A list of shareholders will be available for inspection at our Annual Meeting, and during normal business hours at least ten days prior thereto, at our offices, which are located at 8141 SH 75 South, Huntsville, Texas 77340.

Even if you plan to attend the Annual Meeting, please complete, sign and mail the enclosed proxy card as promptly as possible in the accompanying envelope or use the telephone or Internet voting.

Sincerely

Billy F. Mitcham, Jr. President and Chief Executive Officer

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE SHAREHOLDER MEETING TO BE HELD ON JULY 24, 2014.

The Notice of Annual Meeting of Shareholders, our Proxy Statement for the Annual Meeting and our Annual Report to Shareholders for the fiscal year ended January 31, 2014 are available at www.proxyvote.com

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MITCHAM INDUSTRIES, INC. 8141 SH 75 South P.O. Box 1175 Huntsville, Texas 77342-1175

PROXY STATEMENT FOR ANNUAL MEETING OF SHAREHOLDERS TO BE HELD JULY 24, 2014

SOLICITATION OF PROXIES

Purpose, Place, Date and Time

This proxy statement is furnished in connection with the solicitation by the Board of Directors (our "Board") of Mitcham Industries, Inc., a Texas corporation, of proxies from the holders of record of our common stock, par value \$0.01 per share, at the close of business on May 27, 2014, for use in voting at the Annual Meeting of Shareholders (the "Annual Meeting") to be held at our principal executive offices, which are located at 8141 SH 75 South, Huntsville, Texas 77340 at 9:00 a.m., local time, on Thursday, July 24, 2014, and any adjournment or postponement thereof. You can find directions to the Annual Meeting by visiting our website at *http://www.mitchamindustries.com* and clicking on the "Investor Relations" link.

The Notice of Annual Meeting, this proxy statement, the enclosed proxy card and our Annual Report for the fiscal year ended January 31, 2014 ("2014 Annual Report") are being mailed together on or about June 9, 2014 to each of our shareholders entitled to notice of and to vote at the Annual Meeting.

Properly executed proxies will be voted as directed. If no direction is indicated therein, proxies received in response to this solicitation will be voted FOR: (1) the election of each of the six individuals nominated for election as directors; (2) the advisory vote to approve Named Executive Officer compensation; (3) the ratification of the selection of Hein & Associates LLP as our independent registered public accounting firm by our Audit Committee for the fiscal year ending January 31, 2015; and (4) as recommended by our Board with regard to any other matters that properly come before the Annual Meeting, or if no recommendation is given, at the discretion of the appointed proxies.

Expenses of Solicitation

We will bear the entire cost of soliciting proxies, including the cost of the preparation, assembly, printing and mailing of this proxy statement, the proxy card and any additional information furnished to our shareholders in connection with the Annual Meeting. In addition to this solicitation by mail, our directors, officers and other employees may solicit proxies by use of mail, telephone, facsimile, electronic means, in person or otherwise. These persons will not receive any additional compensation for assisting in the solicitation but may be reimbursed for reasonable out-of-pocket expenses in connection with the solicitation. We have retained Broadridge Investor Communication Solutions, Inc. to aid in the distribution of proxy materials and to provide voting and tabulation services for the Annual Meeting. For these services, we will pay Broadridge a fee of approximately \$15,000 and reimburse it for certain expenses. In addition, we will reimburse brokerage firms, nominees, fiduciaries, custodians and other agents for their expenses in distributing proxy material to the beneficial owners of our common stock.

Shareholders Sharing the Same Last Name and Address

We are sending only one copy of our proxy statement and 2014 Annual Report to shareholders who share the same last name and address, unless they have notified us that they want to continue receiving multiple copies. This practice, known as "householding," is designed to reduce duplicate mailings and save significant printing and postage costs.

If you received a householded mailing this year and you would like to have additional copies of our proxy statement and 2014 Annual Report mailed to you or you would like to opt out of this practice for future mailings,

we will promptly deliver such additional copies to you if you submit your request to our Corporate Secretary in writing at Mitcham Industries, Inc., P.O. Box 1175, Huntsville, Texas 77342-1175, or call us at 936-291-2277. You may also contact us in the same manner if you received multiple copies of the Annual Meeting materials and would prefer to receive a single copy in the future.

VOTING OF SECURITIES

Record Date; Shareholders Entitled to Vote

Our Board has fixed the close of business on May 27, 2014 as the record date for determining the holders of shares of common stock entitled to notice of and to vote at the Annual Meeting. As of the close of business on May 27, 2014, there were 12,679,376 issued and outstanding shares of common stock, each of which is entitled to one vote on each item of business to be conducted at the Annual Meeting.

For a period of at least 10 days prior to the Annual Meeting, a list of the shareholders entitled to vote at the Annual Meeting will be available for inspection during normal business hours at our principal executive offices, which are located at 8141 SH 75 South, Huntsville, Texas 77340.

Quorum; Discretionary Authority

Our Third Amended and Restated Bylaws provide that a majority of the outstanding shares of common stock entitled to vote, represented either in person or by proxy, will constitute a quorum for the transaction of business. Consequently, holders of at least 6,339,689 shares of our common stock must be present either in person or by proxy to establish a quorum for the Annual Meeting. If less than a quorum is represented at the Annual Meeting, a majority of the shares so represented may adjourn the Annual Meeting from time to time without further notice, and the persons named as proxies will vote the proxies they have been authorized at the Annual Meeting in favor of such an adjournment.

In the event a quorum is present at the Annual Meeting but sufficient votes to approve any of the items proposed by our Board have not been received, the persons named as proxies may propose one or more adjournments of the Annual Meeting to permit further solicitation of proxies. A shareholder vote may be taken on one or more of the proposals in this proxy statement prior to such adjournment if sufficient proxies have been received and it is otherwise appropriate. Any adjournment will require the affirmative vote of the holders of a majority of those shares of common stock represented at the Annual Meeting in person or by proxy. If a quorum is present, the persons named as proxies will vote the proxies they have been authorized to vote on any other business properly before the Annual Meeting in favor of such an adjournment.

Our Board does not know of any other matters that are to be presented for action at the Annual Meeting. However, if other matters properly come before the Annual Meeting, it is intended that the enclosed proxy will be voted in accordance with the judgment of the persons voting the proxy.

Abstentions and Broker Non-Votes; Vote Required

Abstentions and broker non-votes are counted for purposes of determining the presence or absence of a quorum for the transaction of business. Abstentions occur when shareholders are present at the Annual Meeting but choose to withhold their vote for any of the matters upon which the shareholders are voting.

If you are a beneficial owner whose shares are held of record by a broker, you will receive instructions from your broker or other nominee describing how to vote your shares. If you do not instruct your broker or nominee how to vote your shares, they may vote your shares as they decide as to each matter for which they have discretionary authority. A "broker non-vote" occurs when a broker or other nominee does not have discretion to vote on a particular matter, you have not given timely instructions on how the broker or other nominee should vote your shares and the broker or other nominee indicates it does not have authority to vote such shares on its proxy. Although broker non-votes will be counted as present at the meeting for purposes of determining a quorum, they will be treated as not entitled to vote with respect to non-discretionary matters.

At the Annual Meeting, brokers will not have discretionary authority to vote on Proposal 1 (Election of Directors) and Proposal 2 (Advisory Vote to Approve Named Executive Officer Compensation) in the absence of timely instructions from the beneficial owners; however, brokers will have discretionary authority to vote on Proposal 3 (Ratification of Selection of Independent Registered Public Accounting Firm).

- Proposal 1 (Election of Directors): To be elected, each nominee for election as a director must receive the affirmative vote of a plurality of the votes cast at the Annual Meeting by holders of shares entitled to vote on the proposal. This means that director nominees with the most votes are elected. Votes may be cast in favor of or withheld from the election of each nominee. Votes that are withheld from a director's election will be counted toward a quorum but will not affect the outcome of the vote on the election of a director. Broker non-votes will have no effect on the outcome of the vote on the election of a director.
- Proposal 2 (Advisory Vote to Approve Named Executive Officer Compensation): Approval of this proposal requires the affirmative vote of the holders of a majority of the votes cast on this proposal at the Annual Meeting. Abstentions and broker non-votes will not be counted as votes cast, and, accordingly, will not affect the outcome of the vote on this proposal. While this vote is required by law, it will neither be binding on our company or our Board, nor will it create or imply any change in the fiduciary duties of, or impose any additional fiduciary duty on, our company or our Board. However, the views of our shareholders are important to us, and our Compensation Committee will take into account the outcome of the vote when considering future executive compensation decisions.
- Proposal 3 (Ratification of Selection of Independent Registered Public Accounting Firm): Ratification of the selection of Hein & Associates LLP as our independent registered public accounting firm for the fiscal year ending January 31, 2015 requires the affirmative vote of the holders of a majority of the votes cast on this proposal at the Annual Meeting. Abstentions will not be counted as votes cast, and, accordingly, will not affect the outcome of the vote on this proposal.

Revocation of Proxies

If you are a registered shareholder (meaning your shares are registered directly in your name with our transfer agent) you may revoke your proxy at any time prior to the vote tabulation at the Annual Meeting by: (1) sending in an executed proxy card with a later date, (2) timely submitting a proxy with new voting instructions by telephone or over the Internet, (3) sending a written notice of revocation by mail to P.O. Box 1175, Huntsville, Texas 77342-1175 marked "Proxy Information Enclosed, Attention: Corporate Secretary" or (4) attending and voting in person by completing a ballot at the Annual Meeting. Attendance at the Annual Meeting will not, in itself, constitute revocation of a completed and delivered proxy card.

If you are a street name shareholder (meaning that your shares are held in a brokerage account by a bank, broker or other nominee) and you vote by proxy, you may change your vote by submitting new voting instructions to your bank, broker or other nominee in accordance with that entity's procedures.

CORPORATE GOVERNANCE

The following sections summarize information about our corporate governance policies, our Board and its committees and the director nomination process.

Our Governance Practices

General

We are committed to sound corporate governance principles. To evidence this commitment, our Board has adopted charters for its committees and a Code of Ethics. These documents provide the framework for our corporate governance. A complete copy of the current version of each of these documents is available on our website at *http://www.mitchamindustries.com* or in print, free of charge, to any shareholder who requests it by contacting us by mail at Mitcham Industries, Inc., P.O. Box 1175, Huntsville, Texas 77342-1175, Attention: Corporate Secretary, or by telephone (936) 291-2277. Our Board regularly reviews corporate governance developments and modifies our governance documents as appropriate.

Code of Ethics

Our Board has adopted a Code of Ethics that applies to all of our employees, including our Chief Executive Officer, Chief Financial Officer and our Corporate Controller, to ensure that our business is conducted in a legal and ethical manner.

All of our directors, officers and employees are required to certify their compliance with the Code of Ethics. The Code of Ethics requires that any exception to or waiver for an executive officer or director be made only by our Board and disclosed as required by law and the listing standards of The NASDAQ Stock Market LLC (the "NASDAQ Listing Standards"). To date, we have neither received any requests for, nor granted, waivers of the Code of Ethics for any of our executive officers or directors.

Among other things, the Code of Ethics addresses:

- conflicts of interest;
- insider trading;
- record keeping and questionable accounting or auditing matters;
- corporate opportunities;
- confidentiality;
- competition and fair dealing;
- compliance with laws and regulations, including the Foreign Corrupt Practices Act of 1977 and similar laws in other countries in which we operate:
- protection and proper use of our company assets; and
- reporting of any illegal or unethical behavior.

It is our policy that there shall be no acts of retaliation, intimidation, threat, coercion or discrimination against any individual for truthfully reporting, furnishing information or assisting or participating in any manner in an investigation, compliance review or other activity related to the administration of the Code of Ethics.

Our Board

Determination of Director Independence

As required under the NASDAQ Listing Standards, a majority of the members of our Board must qualify as independent, as affirmatively determined by our Board. Our Board evaluated all relevant transactions and relationships between each director, or any of his or her family members, and our company, senior management and independent registered public accounting firm. Based on this evaluation, our Board has determined that John F. Schwalbe, R. Dean Lewis, Robert J. Albers and Peter H. Blum are each an independent director, as that term is defined in the NASDAQ Listing Standards. Messrs. Schwalbe, Lewis, Albers and Blum constitute a majority of the members of our Board.

Billy F. Mitcham, Jr. is not independent because he currently serves as our President and Chief Executive Officer. Robert P. Capps is not independent because he currently serves as our Executive Vice President of Finance and Chief Financial Officer.

Attendance at Board and Committee Meetings

During the fiscal year ended January 31, 2014, our Board held six meetings. Each individual serving as a director during such period attended all meetings of our Board and the Board committees on which he served during the fiscal year.

Attendance at Annual Meetings

Our policy is to encourage our directors to attend the annual meetings of our shareholders. All nominees who are currently serving as directors attended the annual meeting of our shareholders in July 2013.

Leadership Structure and Role in Risk Oversight

Our Board separated the positions of Chairman of our Board and Chief Executive Officer in 2004 and elected Peter H. Blum, a non-employee independent director, as our Chairman, and Billy F. Mitcham, Jr. as our President and Chief Executive Officer. Separating these positions allows our Chief Executive Officer to focus on our day-to-day business, while allowing the Chairman to lead our Board in its fundamental role of providing advice to, and independent oversight, of management. Our Board recognizes the time, effort, and energy that the Chief Executive Officer is required to devote to his position in the current business environment, as well as the commitment required to serve as our Chairman, particularly as our Board's oversight responsibilities continue to grow. While our Bylaws do not require that our Chairman and Chief Executive Officer positions be separate, our Board believes that having separate positions and having an independent outside director serve as Chairman is the appropriate leadership structure for our company at this time and demonstrates our commitment to good corporate governance.

Risk is inherent with every business, and how well a business manages risk can ultimately determine its success. We face a number of risks, including economic, environmental and regulatory risks, and others, such as the impact of competition, technological changes and weather conditions. Management is responsible for the day-to-day management of risks our company faces, while our Board, as a whole and through its committees, has responsibility for the oversight of risk management. In its risk oversight role, our Board has the responsibility to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed.

Our Board believes that establishing the right "tone at the top" and that full and open communication between management and our Board are essential for effective risk management and oversight. Our Chairman has regular discussions with our President and Chief Executive Officer and other senior officers to discuss strategy and risks facing our company. Senior management attends the quarterly Board meetings and is available to address any questions or concerns raised by our Board on risk management-related and any other matters. Each quarter, our Board receives presentations from senior management on strategic matters involving our operations.

While our Board is ultimately responsible for risk oversight at our company, each of our Board committees assists our Board in fulfilling its oversight responsibilities in certain areas of risk. The Audit Committee assists our Board in fulfilling its oversight responsibilities with respect to risk management in the areas of financial reporting, internal controls and compliance with legal and regulatory requirements, and, in accordance with the NASDAQ Listing Standards, discusses policies with respect to risk assessment and risk management. The Compensation Committee assists our Board in fulfilling its oversight responsibilities with respect to the management of risks arising from our compensation policies and programs. The Nominating Committee assists our Board in fulfilling its oversight responsibilities with respect to the management of risks associated with Board organization, membership and structure, succession planning for our directors and executive officers and corporate governance. The Strategic Planning Committee assists our Board in fulfilling its oversight responsibilities with respect to the management of risks arising from our long-term strategy development and implementation.

Shareholder Communications with Our Board

Our Board welcomes communications from our shareholders. Shareholders may send communications to our Board, or any director in particular, by contacting us by mail at Mitcham Industries, Inc., P.O. Box 1175, Huntsville, Texas 77342-1175, Attention: Corporate Secretary or via e-mail through our website at *http://www.mitchamindustries.com*. Each communication must (1) identify the sender, (2) identify the applicable director(s) and (3) contain the information necessary to enable the director(s) to contact the sender. Our Corporate Secretary will relay this information to the applicable director(s) and request that the sender be contacted as soon as possible.

Committees of Our Board

As of the date of this proxy statement, our Board has standing Audit, Compensation, Strategic Planning and Nominating Committees. Our Board, in its business judgment, has determined that each committee, other than

the Strategic Planning Committee, is comprised entirely of independent directors as currently required under the NASDAQ Listing Standards and applicable rules and requirements of the Securities and Exchange Commission. Each committee is governed by a written charter approved by the full Board.

Audit Committee

The Audit Committee has been established to assist our Board in:

- overseeing the quality and integrity of our financial statements and other financial information we provide to any governmental body or the public;
- overseeing our compliance with legal and regulatory requirements;
- overseeing the independent registered public accounting firm's qualifications, independence and performance;
- overseeing our systems of internal controls regarding finance, accounting and legal compliance that our management and our Board have established;
- facilitating an open avenue of communication among the registered independent accountants, financial and senior management, and our Board, with the registered independent accountants being accountable to the Audit Committee; and
- performing such other duties as directed by our Board.

In connection with these purposes, the Audit Committee annually selects, engages and evaluates the performance and ongoing qualifications of, and determines the compensation for, our independent registered public accounting firm, reviews our annual and quarterly financial statements and confirms the independence of our independent registered public accounting firm. The Audit Committee also meets with our management and external registered public accounting firm regarding the adequacy of our financial controls and our compliance with legal, tax and regulatory matters and significant internal policies. While the Audit Committee has the responsibilities and powers set forth in its charter, it is not the duty of the Audit Committee to plan or conduct audits, to determine that our financial statements are complete and accurate or to determine that such statements are in accordance with accounting principles generally accepted in the United States ("U.S.") and other applicable rules and regulations. Our management is responsible for the preparation of our financial statements in accordance with accounting firm is responsible for the audit work on our financial statements. It is also not the duty of the Audit Committee to conduct investigations or to assure compliance with laws and regulations and our policies and procedures.

During the fiscal year ended January 31, 2014, the Audit Committee held five meetings. The Audit Committee currently consists of Messrs. Schwalbe (Chairman), Lewis and Albers. Our Board has determined that all members of the Audit Committee are independent as that term is defined in the NASDAQ Listing Standards and Rule 10A-3 promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Our Board also has determined that each member of the Audit Committee is financially literate and that Mr. Schwalbe has the necessary accounting and financial expertise to serve as chairman. Further, our Board has determined that each of Messrs. Schwalbe, Lewis and Albers is an "audit committee financial expert" following a determination that each of them met the criteria for such designation under the Securities and Exchange Commission's rules and regulations. For information regarding the business experience of each of the members of the Audit Committee, see "Proposal 1—Election of Directors—Information About Director Nominees. The report of the Audit Committee appears under the heading "Audit Committee Report" below.

Compensation Committee

Pursuant to its charter, the purposes of our Compensation Committee are to:

review, evaluate and approve the agreements, plans, policies and programs to compensate our officers and directors;

- review and discuss with our management the Compensation Discussion and Analysis to be included in the proxy statement for our annual meeting of shareholders and to determine whether to recommend to our Board that the Compensation Discussion and Analysis be included in the proxy statement, in accordance with applicable rules and regulations;
- produce the Compensation Committee Report for inclusion in the proxy statement, in accordance with applicable rules and regulations;
- otherwise discharge our Board's responsibilities relating to compensation of our officers and directors; and
- perform such other functions as our Board may assign to the committee from time to time.

In connection with these purposes, our Board has entrusted the Compensation Committee with the overall responsibility for establishing, implementing and monitoring the compensation for our executive officers. In general, executive compensation matters are presented to the Compensation Committee or raised with the Compensation Committee in one of the following ways: (1) at the request of the Compensation Committee Chairman or another Compensation Committee member or member of our Board, (2) in accordance with the Compensation Committee's agenda, which is reviewed by the Compensation Committee members and other directors on an annual basis, (3) by our Chief Executive Officer or (4) by the Compensation Committee's outside compensation consultant, if a consultant has been engaged by the Compensation Committee.

The Compensation Committee works with the management team and our Chief Executive Officer to implement and promote our executive compensation strategy. The most significant aspects of management's involvement in this process are:

- preparing materials in advance of Compensation Committee meetings for review by the Compensation Committee members;
- evaluating employee performance;
- establishing our business goals; and
- recommending the compensation arrangements and components for our employees.
- Our Chief Executive Officer is instrumental to this process. Specifically, our Chief Executive Officer assists the Compensation Committee by:
- providing background information regarding our business goals;
- annually reviewing performance of each of our executive officers (other than himself); and
- recommending compensation arrangements and components for our executive officers (other than himself).

Our other executive officers do not play a role in their own compensation determination, other than discussing individual performance objectives with our Chief Executive Officer.

Pursuant to its charter, the Compensation Committee has the sole authority to retain and terminate any compensation consultant to be used to assist in the evaluation of the compensation of our executive officers and directors and also has the sole authority to approve the consultant's fees and other retention terms. Beginning in March 2010, the Compensation Committee has engaged Longnecker & Associates (the "Consultant") annually to assist in evaluating and designing the compensation program for our executive officers and directors. The Consultant is engaged directly by the Compensation Committee and does not provide any other services to us outside of matters pertaining to executive officer and director compensation. The Consultant reports directly to the Compensation Committee, which is solely responsible for determining the scope of services performed by the Consultant and the directions given to the Consultant regarding the performance of such services. Services performed by the Compensation Committee during fiscal 2014 included evaluating levels of executive officer and director compensation data and peer group data (as discussed below), evaluating proposed compensation programs or changes to existing programs, providing information on current executive compensation trends, and providing updates on applicable legislative matters.

For the last completed fiscal year, the Compensation Committee determined that the Consultant was independent of management (and continues to be independent of management) and therefore, the Consultant was able to provide (and continues to be able to provide) the Compensation Committee independent and objective advice. Accordingly, the Compensation Committee determined that the services provided by the Consultant to the Compensation Committee for the last completed fiscal year did not give rise to any conflicts of interest. The Compensation Committee made these determinations by assessing the independence of the Consultant under the six independence factors adopted by the SEC and incorporated into the NASDAQ Listing Standards. Further, in making this assessment, the Compensation Committee considered the Consultant's written correspondence to the Compensation Committee that affirmed the independence of the Consultant and the partners, consultants and employees who provide services to the Compensation Committee on executive and director compensation matters.

Together with management and any counsel or other advisors deemed appropriate by the Compensation Committee, the Compensation Committee typically reviews and discusses the particular executive compensation matter presented and makes a final determination.

To the extent permitted by applicable law, the Compensation Committee may form and delegate some or all of its authority under its charter to subcommittees when it deems such action appropriate.

During the fiscal year ended January 31, 2014, the Compensation Committee held two meetings. The Compensation Committee currently consists of Messrs. Schwalbe, Lewis, Albers and Blum (Chairman). The report of the Compensation Committee appears under the heading "Compensation Committee Report" below.

Strategic Planning Committee

The purpose of the Strategic Planning Committee, as stated in its charter, is to assist our Board and the Chief Executive Officer in their oversight of our long-term strategy development and implementation. In fulfilling this role, from time to time, the Strategic Planning Committee reviews with management the key issues, options and external developments impacting the our strategy. In addition, the committee monitors enterprise risks that may affect us and assists management in addressing such risks in our strategic plan.

During the fiscal year ended January 31, 2014, the Strategic Planning Committee did not meet. The Strategic Planning Committee currently consists of Messrs. Mitcham, Capps, Lewis, Blum (Chairman) and Albers.

Nominating Committee

The purposes of the Nominating Committee, as stated in its charter, include the following:

- identifying individuals qualified to become Board members;
- recommending to our Board the persons to be nominated by our Board for election as directors at the annual meeting of shareholders; and
- performing such other functions as our Board may assign to the committee from time to time.

During the fiscal year ended January 31, 2014, the Nominating Committee did not meet. The Nominating Committee currently consists of Messrs. Schwalbe, Lewis and Blum (Chairman).

Director Nomination Process

The Nominating Committee is responsible for establishing criteria for selecting new directors, actively seeking individuals to become directors and recommending such individuals to our Board. In seeking candidates for our Board, the Nominating Committee will consider the entirety of each candidate's credentials. Currently, the Nominating Committee does not require director candidates to possess a specific set of minimum qualifications, as different factors may assume greater or lesser significance at particular times, and the needs of our Board may vary in light of its composition and the Nominating Committee's perceptions about future issues and needs. However, while the Nominating Committee does not maintain a formal list of qualifications, in making its evaluation and recommendation of candidates, the Nominating Committee may consider, among other

factors, diversity, age, skill, experience in the context of the needs of our Board, independence qualifications and whether prospective nominees have relevant business and financial experience, have industry or other specialized expertise and have high moral character. As set forth above, the Nominating Committee may consider diversity as one of a number of factors in identifying nominees for director. It does not, however, have a formal policy in this regard. The Nominating Committee views diversity broadly to include diversity of experience, skills and viewpoint as well as traditional diversity concepts such as race or gender.

The Nominating Committee may consider candidates for our Board from any reasonable source, including from a search firm engaged by the Nominating Committee or shareholder recommendations, provided that the procedures set forth below are followed. The Nominating Committee does not intend to alter the manner in which it evaluates candidates based on whether the candidate is recommended by a shareholder or not. However, in evaluating a candidate's relevant business experience, the Nominating Committee may consider previous experience as a member of our Board.

Shareholders or a group of shareholders may recommend potential candidates for consideration by the Nominating Committee by sending a written request to our Corporate Secretary at Mitcham Industries, Inc., P.O. Box 1175, Huntsville, Texas 77342-1175. For additional information regarding the submission of shareholder recommendations, see "Shareholder Proposals and Director Nominations."

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

No member of the Compensation Committee is now, or at any time has been, employed by or served as an officer of Mitcham Industries, Inc. or any of its subsidiaries or had any substantial business dealings with Mitcham Industries, Inc. or any of its subsidiaries. None of our executive officers are now, or at any time has been, a member of the compensation committee or board of directors of another entity, one of whose executive officers has been a member of the Compensation Committee or our Board.

TRANSACTIONS WITH RELATED PERSONS

Policies and Procedures

Historically, our Board has reviewed and approved, as appropriate, related person transactions as they have been presented to our Board at the recommendation of management. Recognizing that related person transactions involving our company present a heightened risk of conflicts of interest and/or improper valuation (or the perception thereof), our Board has adopted a formal written process for reviewing, approving and ratifying transactions with related persons, which is described below.

General

Under the policy, any "Related Person Transaction" may be consummated or may continue only if:

- the Audit Committee approves or ratifies the transaction in accordance with the guidelines set forth in the policy and if the transaction is on terms comparable to those that could be obtained in arm's length dealings with an unrelated third party;
- the transaction is approved by the disinterested members of our Board; or
- the transaction involves compensation approved by the Compensation Committee.

For these purposes, a "Related Person" is:

- a senior officer (which includes, at a minimum, each executive vice president and Section 16 officer) or director;
- a shareholder owning more than 5% of our company (or its controlled affiliates);

- a person who is an immediate family member of a senior officer or director; or
- an entity which is owned or controlled by someone listed above, or an entity in which someone listed above has a substantial ownership interest or control of that entity.

For these purposes, a "Related Person Transaction" is a transaction between our company and any Related Person (including any transactions requiring disclosure under Item 404 of Regulation S-K under the Exchange Act), other than:

- transactions available to all employees generally; and
- transactions involving less than \$5,000 when aggregated with all similar transactions.

Audit Committee Approval

Our Board has determined that the Audit Committee is best suited to review and approve Related Person Transactions. Accordingly, at each calendar year's first regularly scheduled Audit Committee meeting, management recommends Related Person Transactions to be entered into for that calendar year, including the proposed aggregate value of the transactions (if applicable). After review, the Audit Committee approves or disapproves the transactions and at each subsequently scheduled meeting, management updates the Audit Committee as to any material change applicable to those proposed transactions.

In the event management recommends any further Related Person Transactions subsequent to the first calendar year meeting, the transactions may be presented to the Audit Committee for approval or preliminarily entered into by management subject to ratification by the Audit Committee; provided that if ratification is not forthcoming, management makes all reasonable efforts to cancel or annul the transaction.

Corporate Opportunity

Our Board recognizes that situations exist where a significant opportunity may be presented to management or a member of our Board that may equally be available to our company, either directly or by referral. Before the opportunity may be consummated by a Related Person (other than an otherwise unaffiliated 5% shareholder), the opportunity must be presented to our Board for consideration.

Disclosure

All Related Person Transactions are to be disclosed in our applicable filings as required by the Securities and Exchange Commission's rules and regulations. Furthermore, all Related Person Transactions are to be disclosed to the Audit Committee, and any material Related Person Transaction are to be disclosed to our Board.

Other Agreements

Management assures that all Related Person Transactions are approved in accordance with any requirements of our financing agreements.

Transactions

Since the beginning of the fiscal year ended January 31, 2014, we have not participated in (or proposed to participate in) any transactions with Related Persons except as described below. Each of these Related Person Transactions was approved under our policy for reviewing Related Person Transactions.

Transactions with Mitcham Family Members

In May 2012, Garrett Sprott was appointed our Corporate Asset Manager, which appointment was approved by the Audit Committee. He is the adult stepson of Billy F. Mitcham, Jr., our President and Chief Executive Officer. Prior to May 2012, Mr. Sprott worked part-time for us in a variety of operational and administrative support roles over a period of approximately five years. For fiscal 2014, Mr. Sprott was paid a salary of \$78,000 and earned a discretionary cash bonus award of \$9,354. He received no other incentive or equity awards during

the year. All amounts paid to Garrett Sprott for fiscal 2014 were approved by the Compensation Committee. For fiscal 2015, it is anticipated that Garrett Sprott will be paid a salary of \$79,500 and may earn discretionary cash bonus awards. Such amounts, if any, will be determined by the Compensation Committee.

Debra Mitcham is employed by us in a marketing and operations role. She is the spouse of Billy F. Mitcham, Jr., our President and Chief Executive Officer. During fiscal 2014, Debra Mitcham was paid a salary of \$112,936 and earned a discretionary cash bonus award of \$13,903. She received no other incentive or equity awards during the year. All amounts paid to Debra Mitcham for fiscal 2014 were approved by the Compensation Committee. For fiscal 2015, it is anticipated that Debra Mitcham will be paid a salary of \$114,400 and may earn discretionary cash bonus awards. Such amounts, if any, will be determined by the Compensation Committee.

STOCK OWNERSHIP MATTERS

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors, executive officers and persons who beneficially own more than 10% of our outstanding common stock to file initial reports of ownership and changes in ownership of common stock with the Securities and Exchange Commission. Reporting persons are required by the Securities and Exchange Commission to furnish us with copies of all Section 16(a) forms they file. Based solely on our review of the copies of reports we received and the written representations from our directors and officers, we believe that all filings required to be made under Section 16(a) were timely made for the fiscal year ended January 31, 2014.

Principal Holders of Securities

The following table sets forth the beneficial ownership of the outstanding shares of common stock as of May 27, 2014 with respect to each person, other than our directors and officers, who we know to be the beneficial owner of more than 5% of our issued and outstanding common stock.

	Common Stock Ben	eficially Owned
Name and Address of Beneficial Owner ⁽¹⁾	Number of Shares	Percent of Class ⁽²⁾
Ariel Investments, LLC 200 E. Randolph Drive Suite 2900 Chicago, IL 60601	3,155,455 ⁽³⁾	24.9%
BlackRock, Inc. 40 East 52 nd Street New York, NY 10022	832,335 ⁽⁴⁾	6.6%
Dimensional Fund Advisors LP Palisades West, Building One 6300 Bee Cave Road Austin, TX 78746	716,173 ⁽⁵⁾	5.6%
Wellington Management Company, LLP 280 Congress Street Boston, MA 02210	871,721 ⁽⁶⁾	6.9%

(1) "Beneficial ownership" is a term broadly defined by the Securities and Exchange Commission in Rule 13d-3 under the Exchange Act and includes more than the typical forms of stock ownership, that is, stock held in the person's name. The term also includes what is referred to as "indirect ownership," meaning ownership of shares as to which a person has or shares investment or voting power. For the purpose of this table, a person or group of persons is deemed to have "beneficial ownership" of any shares as of May 27, 2014 if that person or group has the right to acquire shares within 60 days after such date.

(2) Based on total shares outstanding of 12,679,376 at May 27, 2014 unless otherwise indicated.

(3) Based solely on a Schedule 13G/A as of December 31, 2013 and filed on February 14, 2014 with the Securities and Exchange Commission. According to the Schedule 13G/A, Ariel Investments, LLC had sole voting power over 2,303,017 shares of our common stock and sole dispositive power over 3,155,455 shares of our common stock.

- (4) Based solely on a Schedule 13G as of December 31, 2013 and filed on January 20, 2014 with the Securities and Exchange Commission. According to the Schedule 13G, BlackRock, Inc. had sole voting power over 797,169 shares of our common stock and sole dispositive power over 832,335 shares of our common stock.
- (5) Based solely on a Schedule 13G/A as of December 31, 2013 and filed on February 10, 2014 with the Securities and Exchange Commission. According to the Schedule 13G/A, Dimensional Fund Advisors LP had sole voting power over 690,570 shares of our common stock and sole dispositive power over 716,173 shares of our common stock.
- (6) Based solely on a Schedule 13G/A as of December 31, 2013 and filed on February 14, 2014 with the Securities and Exchange Commission. According to the Schedule 13G/A, Wellington Management Company, LLP had shared voting power and shared dispositive power over 871,721 shares of our common stock.

Security Ownership of Management

The following table sets forth the beneficial ownership of common stock as of May 27, 2014 by: (1) each of the executive officers named in the Summary Compensation Table below, (2) each of our directors and director nominees and (3) all current directors and executive officers as a group. All persons listed have sole disposition and voting power with respect to the indicated shares except as otherwise indicated in the footnotes to the table

	Common Stock Benef	ficially Owned
Name of Beneficial Owner ⁽¹⁾	Number of Shares	Percent of Class ⁽²⁾
Billy F. Mitcham, Jr.	756,475 ⁽³⁾	5.8%
Peter H. Blum	696,736 ⁽⁴⁾	5.4%
John F. Schwalbe	118,300 ⁽⁵⁾	*
R. Dean Lewis	95,465 ⁽⁶⁾	*
Robert J. Albers	79,300 ⁽⁷⁾	*
Paul Guy Rogers	117,590 ⁽⁸⁾	*
Robert P. Capps	173,597 ⁽⁹⁾	1.4%
Guy Malden	74,689 ⁽¹⁰⁾	*
All current directors and executive officers as a group (8 persons)	2,112,152 ⁽¹¹⁾	15.2%

* Less than 1%

- (1) "Beneficial ownership" is a term broadly defined by the Securities and Exchange Commission in Rule 13d-3 under the Exchange Act and includes more than the typical forms of stock ownership, that is, stock held in the person's name. The term also includes what is referred to as "indirect ownership," meaning ownership of shares as to which a person has or shares investment or voting power. For the purpose of this table, a person or group of persons is deemed to have "beneficial ownership" of any shares as of May 27, 2014 if that person or group has the right to acquire shares within 60 days after such date.
- (2) Based on total shares outstanding of 12,679,376 at May 27, 2014 and shares which such individual has the right to acquire within 60 days of May 27, 2014.
- (3) Includes 3,100 shares owned by Mr. Mitcham's spouse and 3,000 shares underlying exercisable options issued to Mr. Mitcham's spouse. Also includes shares underlying exercisable options and options that will become exercisable within 60 days of May 27, 2014 (collectively, the "Exercisable Options") to purchase an aggregate of 323,000 shares of common stock.
- (4) Includes 340,000 shares underlying Exercisable Options, 6,000 shares owned by Mr. Blum's spouse's individual retirement account.
- (5) Includes 110,000 shares underlying Exercisable Options.
- (6) Includes 74,665 shares underlying Exercisable Options.
- (7) Includes 68,000 shares underlying Exercisable Options.
- (8) Includes 88,333 shares underlying Exercisable Options.
- (9) Includes 146.667 shares underlying Exercisable Options.
- (10) Includes 51,668 shares underlying Exercisable Options.
- (11) Includes 1,202,333 shares underlying Exercisable Options.

PROPOSAL 1: ELECTION OF DIRECTORS

General

Six individuals will be elected at the Annual Meeting to serve as directors until the next annual meeting, each until their respective successors are duly elected and qualified. Shareholders may not cumulate their votes in the election of our directors. Our Board has nominated the six individuals listed below to serve until our 2015 Annual Meeting of Shareholders. All of the director nominees are currently serving on our Board. Certain individual qualifications and skills of our directors that contribute to our Board's effectiveness as a whole are described below in each director's biographical information below.

The persons appointed as proxies in the enclosed proxy card will vote such proxy "FOR" the persons nominated for election to our Board, except to the extent authority to vote is expressly withheld with respect to one or more nominees. If any nominee is unable to serve as a director for any reason, all shares represented by proxies pursuant to the enclosed proxy card, absent contrary instructions, will be voted for any substitute nominee designated by our Board.

Our Board recommends a vote "FOR" the election of each of the director nominees identified below.

Information About Director Nominees

The following table sets forth the names and ages, as of May 27, 2014, of our current directors, each of whom is a director nominee. Our directors are elected annually and serve one-year terms or until their death, resignation or removal.

Name	Age	Positions Held	Director Since
Billy F. Mitcham, Jr.	66	Director, President and Chief Executive Officer	1987
Peter H. Blum	57	Non-Executive Chairman	2000
Robert P. Capps	60	Director, Executive Vice President of Finance and Chief Financial Officer	2004
R. Dean Lewis	71	Director	1995
John F. Schwalbe	70	Director	1994
Robert J. Albers	73	Director	2008

Billy F. Mitcham, Jr. has served as our President and Chief Executive Officer since our inception in 1987. From 1987 until July 2004, Mr. Mitcham also served as Chairman of our Board. Mr. Mitcham has more than 35 years of experience in the geophysical industry. From 1979 to 1987, he served in various management capacities with Mitcham Associates, an unrelated equipment leasing company. From 1975 to 1979, Mr. Mitcham served in various capacities with Halliburton Services, primarily in oilfield services. As our President and CEO, Mr. Mitcham brings significant senior leadership and extensive industry and technical experience to our Board. Our Board believes that this experience enables Mr. Mitcham to effectively serve as a director.

Peter H. Blum was elected Non-Executive Chairman of our Board on July 8, 2004. Mr. Blum is Co-Chief Executive Officer and Co-President of Ladenburg Thalmann & Co., Inc., an investment banking firm, where he has been employed since 2004. Prior to 2004, Mr. Blum was a senior investment banker with various Wall Street firms. Mr. Blum started his career with Arthur Young & Co. as a Certified Public Accountant and received a Bachelor of Business Administration degree from the University of Wisconsin-Madison. Mr. Blum has over 30 years of experience as an investment banker in the energy industry during which time he provided consultation and advice to a variety of companies. He also has extensive experience in financial and capital markets. Our Board believes that Mr. Blum's experience supports its efforts in overseeing and advising on corporate strategy and financial matters, enabling him to effectively serve as a director.

Robert P. Capps has been a member of our Board since July 2004. In June 2006, Mr. Capps was appointed as our Executive Vice President and Chief Financial Officer. From July 1999 until May 2006, he was the Executive Vice President and Chief Financial Officer of TeraForce Technology Corporation, a publicly-held provider of defense electronics products. From 1996 to 1999, Mr. Capps was Executive Vice President and Chief

Financial Officer of Dynamex, Inc., a NASDAQ-listed supplier of same-day transportation services. Prior to his employment with Dynamex, Mr. Capps was Executive Vice President and Chief Financial Officer of Hadson Corporation, a New York Stock Exchange-listed energy company. Mr. Capps is a Certified Public Accountant and was formerly with Arthur Young & Co. Mr. Capps holds a Bachelor of Accountancy degree from the University of Oklahoma. Mr. Capps has over 35 years of financial experience, including more than 20 years as chief financial officer for public companies, including ours. Our Board believes that Mr. Capps' experience allows him to offer valuable perspectives on our corporate planning, budgeting, and financial reporting, thereby enabling him to effectively serve as a director.

R. Dean Lewis retired in 2011 as Professor of Marketing at Sam Houston State University. From June 2008 until his retirement, Dr. Lewis served as the Vice President of Finance and Administration at Sam Houston State University. From October 1995 to June 2008, he was the Dean of the Business School at Sam Houston State University. From 1987 to October 1995, Dr. Lewis was the Associate Dean and Professor of Marketing at Sam Houston State University. Prior to 1987, Dr. Lewis held a number of executive positions in the banking and finance industries. Dr. Lewis brings to our Board not only broad business experience and management expertise, but also a unique perspective gained from serving in various positions at a state university. Our Board believes that this experience enables Dr. Lewis to effectively serve as a director.

John F. Schwalbe has had a professional career in public accounting for more than 30 years. Mr. Schwalbe's experience includes auditing of oil and gas exploration and production enterprises, school districts and various banking institutions. Prior to his retirement in 2007, Mr. Schwalbe was in private practice for more than 25 years, with a primary emphasis on tax planning, consultation and compliance. Mr. Schwalbe is a Certified Public Accountant and holds a Bachelor of Business Administration degree from Midwestern University. Our Board believes that Mr. Schwalbe's extensive financial and accounting experience, including that related to the energy industry, enables him to effectively serve as a director.

Robert J. Albers was appointed to our Board in January 2008 based on the recommendation of the Nominating Committee. Mr. Albers currently manages Bob Albers Consulting whereby he acts as corporate management advisor to the management of the Sercel Group, a global manufacturer of geophysical equipment. From 1995 to 2002, he was Executive Vice President of Sercel, Inc. From 1990 to 1994, Mr. Albers served as Vice President and General Manager of Halliburton Geophysical Products. In 1982, he joined Geosource, Inc. and served as President and General Manager, Operations and Technology Group; from 1963 to 1982, he held various management and leadership roles at Chevron Oil Company. Mr. Albers holds a Bachelor of Science degree in Mining Engineering from Lehigh University. Mr. Albers has more than 30 years of experience as a manager and executive in the seismic industry. He possesses broad technical and financial expertise in the seismic industry. Our Board believes that Mr. Albers' significant senior leadership and industry-specific experience enables him to effectively serve as a director.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The following table sets forth the names, ages and titles, as of May 27, 2014, of each of our executive officers. Our executive officers are elected annually by our Board and serve one-year terms or until their death, resignation or removal by our Board. There are no family relationships between any of our directors and executive officers. In addition, there are no arrangements or understandings between any of our executive officers or directors and any other person pursuant to which any person was selected as a director or an executive officer, respectively.

Name	Age	Positions Held
Billy F. Mitcham, Jr.	66	President and Chief Executive Officer
Robert P. Capps	60	Executive Vice President of Finance and Chief Financial Officer
Guy Malden	62	Executive Vice President of Marine Systems
Paul Guy Rogers	64	Vice President of Business Development

Billy F. Mitcham, Jr.'s biographical information may be located under "Proposal 1: Election of Directors — Information About Director Nominees."

Robert P. Capps' biographical information may be located under "Proposal 1: Election of Directors — Information About Director Nominees."

Guy Malden has served as our Executive Vice President of Marine Systems since January 2004. Mr. Malden has over 35 years of experience in the geophysical industry and has been with Mitcham Industries since 2002. From 1999 to 2002, he served as Vice President of Operations for American International Exploration Group. From 1993 to 1999, he served in various management capacities with several seismic equipment manufacturers, most notably Syntron, Inc. From 1975 to 1993, Mr. Malden served in various field and management capacities with Geophysical Service Inc./Halliburton Geophysical Services. Mr. Malden holds a degree in Marine Geology from Long Island University.

Paul Guy Rogers has served as our Vice President of Business Development since October 2001. From February 1993 to September 2001, Mr. Rogers served as Senior Sales Representative with Geo Space LP, a worldwide manufacturer of geophysical equipment, with responsibilities for sales in the U.S. and Latin America. Mr. Rogers has more than 25 years of experience in the geophysical industry.

COMPENSATION DISCUSSION AND ANALYSIS

Overview of Our Executive Compensation Program

Our business strategy is to meet the needs of the seismic industry by providing leasing services for a wide range of equipment and to provide technologically advanced solutions for marine seismic applications. To achieve this, we leverage one of our key strengths—the expertise of our executive officers.

Our executive compensation program is structured principally around one goal—attracting, motivating and retaining top executive talent with the requisite skills and experience to execute our business strategy. In addition, we believe our executive officers should be rewarded for performance that will result in increased shareholder value. We do not, however, utilize specific performance metrics in determining compensation. The Compensation Committee of our Board (for purposes of this Compensation Discussion and Analysis, the "Committee") evaluates individual performance and considers overall company performance when determining selected elements of our executive compensation program. These elements consist primarily of base salaries, annual cash incentive payments and long-term equity-based incentives. The Committee combines the compensation elements for each executive officer in a manner that we believe optimizes the officer's contribution to our company.

Throughout this proxy statement, the individuals who served as our Chief Executive Officer and Chief Financial Officer during the fiscal year ended January 31, 2014, as well as the other individuals included in the Summary Compensation Table, are referred to as "Named Executive Officers."

Objectives of Our Executive Compensation Program

We have developed an executive compensation program that is designed to (1) develop and retain key executive officers responsible for our success and (2) motivate management to enhance long-term shareholder value. To achieve these goals, the Committee's executive compensation decisions are based on the following principal objectives:

- providing a competitive compensation package that attracts, motivates and retains qualified and highly-skilled officers that are key to our long-term success;
- rewarding individual performance by ensuring a meaningful link between our operational performance and the total compensation received by our officers;
- avoiding policies and practices that create risks that might have a material adverse effect on us; and
- avoiding creation of an environment that might cause undue pressure to meet specific financial goals.

Implementing Our Objectives

Role of the Committee and Management

Our Board has entrusted the Committee with overall responsibility for establishing, implementing and monitoring our executive compensation program. Our Chief Executive Officer also plays an important role in the executive compensation process by overseeing the performance and dynamics of the executive team and generally keeping the Committee informed. However, all final decisions regarding our Named Executive Officers' compensation remain with the Committee, and, in particular, company management has no involvement with the compensation decisions with respect to our Chief Executive Officer. Additional information regarding the role and authority of the Committee and management in the process for determining executive compensation is provided in this proxy statement in "Corporate Governance—Committees of Our Board—Compensation Committee."

Determining Compensation

The Committee, which relies upon the judgment of its members in making compensation decisions, has established a number of processes to assist it in ensuring that our executive compensation program supports our

objectives and company culture. Among those are total compensation review, competitive benchmarking and assessment of individual and company performance, which are described in more detail below.

Total Compensation Review and Competitive Benchmarking. At least annually, the Committee reviews each executive officer's base salary, annual cash incentives and long-term equity-based incentives. In addition to these primary compensation elements, the Committee periodically reviews perquisites and other compensation as well as payments that would be required under employment agreements and our equity-based plans.

In April 2010, the Committee initially retained Longnecker and Associates (the "Consultant") to assist in the review of our executive compensation practices. The Consultant has annually updated this analysis, most recently in May 2014. In conducting this review, the Consultant examined the compensation practices of a group of public companies that might be considered our peers and referred to a variety of published compensation surveys. The group of peer companies (collectively, the "Peer Companies"). consisted of the following:

- Bolt Technology Corporation
- Faro Technologies, Inc.
- ION Geophysical Corporation

- Dawson Geophysical Company
- Global Geophysical Services, Inc.

Geospace Technologies Corporation

TGC Industries, Inc.

The Peer Companies were selected by the Consultant as companies that operate in our general industry and with which we compete for management employees. The selection of the Peer Companies was reviewed and approved by the Committee.

The published surveys consisted of the following:

- Economic Research Institute, 2014 ERI Executive Compensation Assessor;
- Towers Watson, 2013/2014 Top Manager Compensation;
- Mercer, 2014 US General Benchmark Survey;
- Kenexa 2014 CompAnalyst; and
- WorldatWork, 2013/2014 Total Salary Increase Budget Survey.

From these surveys, the Consultant obtained market compensation data for companies with revenues comparable to us.

Based upon the results of its review, the Committee concluded that the general composition of our executive compensation program (which includes a combination of base salaries, annual cash incentive payments and long-term equity-based incentives), was appropriate and consistent with comparable companies. We believe that our executive compensation is above the mean of that of our Peer Companies and other comparable companies.

In addition to studying the compensation practices and trends at the Peer Companies, the Committee has determined that it is beneficial to our understanding of more general compensation expectations to consider the best practices in compensation policies from other companies that are not necessarily peers or limited to our industry. Accordingly, the analysis performed by the Consultant included comparisons of our compensation practices to certain published surveys, as indicated above. The Committee does not structure our executive compensation program based on market data alone, and it does not utilize any true "benchmarking" techniques when making compensation decisions. The Committee has not used the Peer Companies to establish a particular range of compensation for any element of pay. Rather, Peer Company and other market data have been used as general guidelines in the Committee's deliberations on each element of compensation.

Assessment of Individual and Company Performance. We believe that a balance of individual and company performance criteria should be used in establishing total compensation. In determining the level of compensation for each Named Executive Officer, the Committee subjectively considers our overall financial and operational performance and the relative contribution and performance of each of the named Executive Officers.

Relationship of Compensation Practices to Risk Management

The Committee has reviewed and discussed the structure of our compensation program in order to assess whether any aspect of the program could potentially be expected to provide an incentive to our executive officers or other employees to take any unnecessary or inappropriate risks that could threaten our operating results, financial condition or impact long-term shareholder value. Based on our internal controls, policies and risk-mitigating components in our incentive arrangements currently in place as well as the Committee's formal review and discussion, the Committee believes our compensation programs represent an appropriate balance of short-term and long-term compensation and do not encourage our executive officers or other employees to take on unnecessary or excessive risks that are reasonably likely to have a material adverse effect on the company. We allocate compensation between fixed components, annual cash incentives and long-term equity incentives based, in part, on an employee's position and level of responsibility within our organization. Our equity awards are a mix of options and restricted stock. We believe our mix of compensation elements helps to ensure that our Named Executive Officers do not focus on achieving short-term results at the expense of the long-term growth and sustainability of our company. None of our Named Executive Officers receives compensation derived from commissions. No portion of compensation for these individuals is tied to the obtainment of specific financial performance targets. We believe that these practices further reduce the likelihood that these executives, or any of our employees, would take any unnecessary or inappropriate risks. Base salary is the only guaranteed portion of compensation that we provide to our executives and other employees, which does not depend on individual or company performance results. Consequently, a substantial portion of our incentive compensation arrangements are intended to reward performance.

Elements of Our Executive Compensation Program

The Committee evaluates both performance and compensation to ensure that we maintain our ability to retain superior employees in key positions and that compensation provided to our key employees remains competitive relative to the compensation paid to similarly situated executive officers of our Peer Companies. In furtherance of these goals, our executive officers are compensated through short-term and long-term incentive compensation plans, consisting of cash and non-cash compensation. Our short-term compensation components consist of an annual base salary and annual cash incentive payments. The Mitcham Industries, Inc. Stock Awards Plan (the "Stock Awards Plan" or the "Plan") provides our long-term incentive compensation component. Our Named Executive Officers are eligible to participate in our health and welfare and retirement plans on the same basis as our other employees in the U.S. In addition, they are eligible to receive perquisites and other personal benefits as described under "Other Benefits" below.

Base Salaries

We provide our executive officers and other employees with an annual base salary to compensate them for services to us rendered during the year.

In addition to providing a base salary that the Committee subjectively considers to be competitive, based in part on the analysis prepared by the Consultant, with the market, we target base salaries based on the duties and responsibilities of each officer, retention concerns, and a desire to align the salary level of each of our Named Executive Officers to promote internal pay equity relative to our other officers. To that end, annual salary adjustments are based on the Committee's subjective analysis of many individual factors, including:

- the responsibilities of the officer;
- the period over which the officer has performed these responsibilities;
- the scope, level of expertise and experience required for the officer's position;
- the strategic impact of the officer's position;
- the potential future contribution and demonstrated individual performance of the officer; and
- the general economic environment in which we are currently operating.

In addition to individual factors listed above, the Committee considers our overall business performance, such as our net earnings, earnings before interest, taxes, depreciation and amortization (or EBITDA), leasing growth, sales growth and implementation of directives. While these metrics generally provide context for making base salary decisions, these decisions do not depend on the attainment of specific goals or performance levels, no specific weighting is given to any one factor over another and specific performance criteria or targets are not communicated to our Named Executive Officers.

Base salaries are generally reviewed annually but are not automatically increased if the Committee believes that an award in other elements of compensation would be more appropriate in light of the Committee's stated objectives. However, in order to pay base salaries for our Named Executive Officers that are consistent with our objectives and based on the results of the analysis performed by the Consultant, the Committee adjusted the fiscal 2014 base salary levels for these officers, effective as of June 1, 2013. The analysis provided by the Consultant included a comparison of the base salaries of our Named Executive Officers to average base salaries of comparable positions within our Peer Companies and in published surveys. The adjusted salaries were above the comparable mean salaries in this comparison.

The following table provides the base salaries for our Named Executive Officers in fiscal years 2013 and 2014 and the percentage increase between each fiscal year:

Named Executive Officer	Fiscal 2013 Base Salary	Fiscal 2014 Base Salary	Percentage Increase
	(\$)	(\$)	(%)
Billy F. Mitcham, Jr.	550,000	566,500	3
Robert P. Capps	300,000	309,000	3
Guy Malden	290,000	298,700	3
Paul Guy Rogers	260,000	267,800	3

Consistent with the methodology discussed above, in May 2014, the Committee determined to make no changes to the base salaries of each of our Named Executive Officers in fiscal 2015.

Bonus Awards

In May 2014, consistent with our goals of providing a competitive compensation program and avoiding an environment that might cause undue pressure to meet specific financial goals, we awarded each of the Named Executive Officers a discretionary cash bonus for the fiscal year ended January 31, 2014. The amount of each of the awards was determined based upon our subjective analysis of each officer's individual contributions and responsibilities and our overall financial performance in fiscal 2014. The specific considerations included each individual's contribution towards (1) maintaining our market position in a generally depressed environment in our industry; (2) the development of new markets, such as in South America, the Middle East, Europe and elsewhere in the world, and customers; (3) the development of our organization, including the development of personnel; (4) controlling costs; (5) the development and implementation of a strategic planning process; and (6) maintaining and enhancing our control environment and specific internal controls. While these considerations were important to the Committee in awarding bonuses, they were not communicated to the Named Executive Officers prior to payment and, consequently, these awards are reflected in the "Bonus" column of the analysis performed by the Consultant. The Committee considered these discretionary awards an important factor in avoiding an environment that might cause undue pressure to meet financial goals or expectations and in ensuring the Committee retains discretion and ultimate responsibility over the aggregate compensation received by our Named Executive Officers. The amount of the Bonus Awards for fiscal 2014 were less than amounts in the previous two fiscal years, reflecting our overall lower financial performance in fiscal 2014 compared to the previous periods. These awards are reflected in the "Bonus" column of the Summary Compensation Table for the year ended January 31, 2014.

In December 2013, a discretionary bonus was awarded to each of our Named Executive Officers in connection with holiday bonuses given all of our U.S. based employees. These bonus awards are immaterial in amount and were less than 2% of each Named Executive Officer's base salary. These awards are reflected in the "Bonus" column of the Summary Compensation Table.

Long-Term Equity-Based Incentives

Our long-term equity-based incentive program is designed to give our key employees a longer-term stake in our company, act as a long-term retention tool and align employee and shareholder interests by aligning compensation with growth in shareholder value. To achieve these objectives, we generally rely on a combination of grants of stock options and restricted stock, which are subject to vesting requirements and are made under the Plan.

Currently, we have no formal policy regarding the allocation of equity awards between stock options and restricted stock. All grants are discretionary and are made by the Committee, which administers the Plan. In its considerations of whether or not to grant equity awards to our executive officers and, if equity awards are so granted, in its considerations of the type and size of the awards, the Committee considers our company-level performance, the applicable executive officer's performance, comparative share ownership by comparable executives of comparable companies, including the Peer Companies, the amount of equity previously awarded to the applicable executive officer and the vesting of such awards. While there is no formal weighting of these elements, the Committee considers each in its analysis.

In May 2014, the Committee granted a mix of stock option and stock awards to our Named Executive Officers as reflected in the table of Grants of Plan-Based Awards for the Year Ended January 31, 2014. Based on the analysis prepared by the Consultant, the Committee believed that awarding a combination of option and stock awards was consistent with practices of other companies. We believe that these grants and the previously-granted vested and unvested long-term equity-based awards continue to both provide meaningful incentives for our Named Executive Officers and satisfy the objectives of our compensation program. The amount of the awards was subjectively determined based on the relative contribution and responsibilities of each of our Named Executive Officers. The specific considerations included each individual's contribution were generally the same as those considered in determining the Bonus Awards as discussed above.

In May 2014, consistent with the methodology discussed above, the Committee granted restricted stock and option awards to each of our Named Executive Officers. Based on the analysis prepared by the Consultant, the Committee continues to believe that awarding a combination of option and stock awards is consistent with practices of other companies. The amounts of the awards were as follows: Mr. Mitcham – 15,000 shares of restricted stock and options to purchase 33,000 shares of common stock; Mr. Capps – 5,000 shares of restricted stock and options to purchase 16,500 shares of common stock; Mr. Malden – 5,000 shares of common stock; Mr. Capps – 5,000 shares of common stock; Mr. Rogers – 3,300 shares of restricted stock and options to purchase 11,000 shares of common stock. The restricted stock vests one-third on May 21, 2015, one-third on May 21, 2016 and one-third on May 21, 2017. The options have an exercise price of \$13.02 per share, based on the closing stock price on the grant date, and vest one-third on May 21, 2015, one-third on May 21, 2017. The vesting provisions are consistent with those of equity awards granted by our Peer Companies and further facilitate our retention efforts.

Other Benefits

In addition to base salaries, annual cash incentives and long-term equity-based incentives, we provide the following forms of compensation:

 Health and Welfare Benefits. Our executive officers are eligible to participate in medical, dental, vision, disability insurance and life insurance to meet their health and welfare needs. These benefits are provided so as to assure that we are able to maintain a competitive position in terms of attracting and retaining officers and other employees. This is a fixed component of compensation, and the benefits are provided on a non-discriminatory basis to all of our employees in the U.S.

— Perquisites and Other Personal Benefits. We believe that the total mix of compensation and benefits provided to our executive officers is competitive, and perquisites should generally not play a large role in our executive officers' total compensation. As a result, the perquisites and other personal benefits we provide to our executive officers are limited. Under our employment agreement with Mr. Mitcham, we maintain a term life insurance policy in an amount equal to at least three times his annual salary. In addition, we pay for club membership privileges that are used for business and personal purposes by Mr. Mitcham. We also provide each of Messrs. Mitcham, Rogers and Malden with the use of a company-owned automobile, as they are required to drive considerable distances in order to visit existing and potential customers. All of our executive officers participate in our 401(k) retirement plan, which is available to all of our employees in the U.S.

Employment Agreements, Severance Benefits and Change in Control Provisions

Employment Agreement with Billy F. Mitcham, Jr.

We maintain an employment agreement with our President and Chief Executive Officer, Mr. Mitcham, to ensure that he will perform his role for an extended period of time. This agreement is described in more detail elsewhere in this proxy statement. Please read "Executive Compensation—Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table—Employment Agreement with Billy F. Mitcham, Jr." This agreement provides for severance compensation to be paid if the employment of Mr. Mitcham is terminated under certain conditions, such as constructive termination and termination without cause, each as defined in the agreement.

The employment agreement between Mr. Mitcham and us and the related severance provisions are designed to meet the following objectives:

- Constructive Termination. In certain scenarios, the potential for merger or being acquired may be in the best interests of our shareholders. As a result, we have agreed to provide severance compensation to Mr. Mitcham if he terminates his employment within 60 days following a "constructive termination" to promote his ability to act in the best interests of our shareholders even though his duties and responsibilities could be changed as a result of the transaction.
- Termination without Cause. If we terminate Mr. Mitcham's employment without cause, we are obligated to pay him certain compensation and other benefits. We believe these payments are appropriate because (1) Mr. Mitcham is bound by confidentiality, non-solicitation and non-compete provisions for a period of two years after termination and (2) Mr. Mitcham and we have mutually agreed to a severance package that is in place prior to any termination event. This provides us with more flexibility to make a change in senior management if such a change is in our and our shareholders' best interests.

We believe that the triggering events under Mr. Mitcham's employment agreement represent the general market triggering events found in employment agreements of companies against whom we compete for executive-level talent at the time they were negotiated. The employment agreement and payments thereunder are described in greater detail in "Potential Payments upon Termination or Change in Control" below.

Equity-Based Plans

Under the terms of our equity incentive plans, any unvested grants will become vested and, in the case of stock options, exercisable, upon the executive officer's death or disability or upon a change in control of our company (as defined in the applicable award agreement). We believe these triggering events represent the general market triggering events found in comparable agreements of companies against whom we compete for executive-level talent.

Other Matters

Stock Ownership Guidelines and Hedging Prohibition

The Committee has not implemented stock ownership guidelines for our executive officers. Our Insider Stock Trading Policy discourages, but does not prohibit, executive officers from entering into certain derivative

transactions related to our common stock, including transactions in put and call options. We will continue to periodically review best practices and re-evaluate our position with respect to stock ownership guidelines and hedging prohibitions.

Tax Treatment of Executive Compensation Decisions

Our Board has not yet adopted a policy with respect to the limitation under Section 162(m) of the Internal Revenue Code (the "Code"), which generally limits our ability to deduct compensation in excess of \$1.0 million to a particular executive officer in any year. However, we previously requested, and received, shareholder approval of certain material terms of the Stock Awards Plan to provide flexibility to the Committee to award performance based compensation that may be exempt from the limitations of Section 162(m) of the Code.

Results of Prior Year Advisory Vote on Executive Compensation

In determining the appropriateness of our executive compensation program the Committee also considered the results of the prior year's advisory vote on executive compensation ("say-on-pay"). At our fiscal 2013 Annual Meeting of Shareholders, the proposal to approve the compensation of our Named Executive Officers was approved, with more than 88% of shareholders voting in favor of the proposal. At our fiscal 2012 Annual Meeting of Shareholders, a similar proposal was approved, with more than 98% of shareholders voting in favor of the proposal.

COMPENSATION COMMITTEE REPORT

The Compensation Committee has reviewed and discussed the disclosure set forth above under the heading "Compensation Discussion and Analysis" with management and, based on the review and discussions, it has recommended to the Board of Directors that the "Compensation Discussion and Analysis" be included in this proxy statement and incorporated by reference into Mitcham Industries, Inc.'s Annual Report on Form 10-K for the fiscal year ended January 31, 2014.

Respectfully submitted by the Compensation Committee,

Peter H. Blum (Chairman) Robert J. Albers R. Dean Lewis John F. Schwalbe

EXECUTIVE COMPENSATION

Summary Compensation

The following table summarizes, with respect to our Named Executive Officers, information relating to the compensation earned for services rendered in all capacities. Our Named Executive Officers consist of our four current executive officers, including our Chief Executive Officer and Chief Financial Officer.

Summary Compensation Table for Fiscal Year Ended January 31, 2014

Name and Principal Position	Fiscal Year Ended January 31	Salary (\$)	Bonus (\$)	Stock <u>Awards⁽¹⁾ (\$)</u>	Option <u>Awards⁽²⁾</u> (\$)	All Other <u>Compensation⁽³⁾</u> (\$)	<u> </u>
Billy F. Mitcham, Jr.	2014	561,000	262,080 ⁽⁴⁾	219,450	233,700	25,023	1,301,253
President and Chief Executive Officer	2013	531,667	326,087	285,900	259,200	21,305	1,424,159
	2012	480,000	354,103	109,840	97,250	89,770	1,130,963
Robert P. Capps	2014	306,000	96,400 ⁽⁵⁾	73,150	116,850	11,642	604,042
Executive Vice President and Chief	2013	293,333	119,194	95,300	129,600	11,489	648,916
Financial Officer	2012	270,000	129,208	61,785	58,350	11,255	530,598
Guy Malden	2014	295,800	88,480 ⁽⁶⁾	73,150	116,850	16,160	590,440
Executive Vice President Marine Systems	2013	283,333	109,033	95,300	129,600	16,065	633,330
	2012	260,000	109,050	61,785	58,350	14,654	503,839
Paul Guy Rogers	2014	265,200	55,920 ⁽⁷⁾	47,619	77,900	15,550	462,189
Vice President Business Development	2013	255,000	68,540	62,898	86,400	14,968	487,806
·	2012	240,000	74,155	41,190	38,900	14,726	408,971

(1) This column includes the grant date fair value of the stock awards computed in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 718 ("FASB ASC Topic 718") determined without regard to forfeitures. These amounts reflect our accounting valuation of these awards, and do not correspond to the actual value that will be recognized by our Named Executive Officers. The assumptions used in the calculation of these amounts are discussed in Note 13 to our audited financial statements included in our Annual Report on Form 10-K for the fiscal year ended January 31, 2014. The 2014 awards were granted on May 13, 2013 to Messrs. Mitcham, Capps, Malden and Rogers. See "Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table" below for a description of the material features of these awards.

(2) This column includes the grant date fair value of the option awards computed in accordance with FASB ASC Topic 718 determined without regard to forfeitures. These amounts reflect our accounting valuation of these awards, and do not correspond to the actual value that will be recognized by our Named Executive Officers. The assumptions used in the calculation of these amounts are discussed in Note 13 to our audited financial statements included in our Annual Report on Form 10-K for the fiscal year ended January 31, 2014. The 2014 awards were granted on May 13, 2013 to Messrs. Mitcham, Capps, Malden and Rogers. See "Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table" below for a description of the material features of these awards.

(3) All Other Compensation for the fiscal year ended January 31, 2014 consists of the following:

Name and Principal Position	Life Insurance <u>Premiums</u> (\$)	Automobile Costs (8) (\$)	Country Club <u>Dues</u> (\$)	401(k) Matching <u>Contributions</u> (\$)	<u>Total</u> (\$)
Billy F. Mitcham, Jr. President and Chief Executive Officer	6,858	1,281	6,684	10,200	25,023
Robert P. Capps Executive Vice President and Chief Financial Officer	2,322	_	—	9,320	11,642
Guy Malden Executive Vice President Marine Systems	3,564	3,282	—	9,314	16,160
Paul Guy Rogers Vice President Business Development	1,980	2,988	—	10,582	15,550

(4) Amount for 2014 consists of a \$257,600 discretionary bonus awarded in May 2014 and holiday cash bonus of \$4,480 paid in December 2013.

(5) Amount for 2014 consists of a \$92,000 discretionary bonus awarded in May 2014 and \$4,480 holiday cash bonus paid in December 2013.

- (6) Amount for 2014 consists of an \$84,000 discretionary cash bonus awarded in May 2014 and holiday cash bonus of \$4,480 paid in December 2013.
- (7) Amount for 2014 consists of a \$51,520 discretionary bonus awarded in May 2014 and holiday cash bonus of \$4,480 paid in December 2013.
- (8) Automobile costs are determined by multiplying the Alternate Lease Value, as published by the Internal Revenue Service, by the percentage of personal use mileage for the year.

Grants of Plan-Based Awards

The following table provides information concerning each grant of an award made to our Named Executive Officers under any plan, including awards, if any, that have been transferred during the fiscal year ended January 31, 2014.

Grants of Plan-Based Awards for the Year Ended January 31, 2014					
Name	Grant Date	All Other Stock Awards: Number of Shares of Stock (#)	All Other Option Awards: Number of Securities <u>Underlying Options</u> (#)	Exercise or Base Price of Option <u>Awards</u> (\$/Sh)	Grant Date Fair Value of Stock and <u>Option Awards⁽¹⁾</u> (\$)
Billy F. Mitcham, Jr.	5-13-13		30,000	14.63	233,700
	5-13-13	15,000			219,450
Robert P. Capps	5-13-13		15,000	14.63	116,850
	5-13-13	5,000			73,150
Guy Malden	5-13-13		15,000	14.63	116,850
	5-13-13	5,000			73,150
Paul Guy Rogers	5-13-13		10,000	14.63	77,900
	5-13-13	3,300			48,279

(1) This column includes the grant date fair value of the awards computed in accordance with FASB ASC Topic 718 determined without regard to forfeitures. These amounts reflect our accounting valuation of these awards, and do not correspond to the actual value that will be recognized by our Named Executive Officers.

Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table

The following is a discussion of material factors necessary to an understanding of the information disclosed in the Summary Compensation Table and the Grants of Plan-Based Awards Table.

Long-Term Equity-Based Incentive Compensation

On May 13, 2013, the Compensation Committee granted Messrs. Mitcham, Capps, Rogers and Malden restricted stock and stock options under our Plan. The restrictions on the stock award lapse are as follows: one-third on the first anniversary of the grant, one-third on the second anniversary of the grant and one-third on the third anniversary of the grant. The stock options have an exercise price of \$14.63 per share, which was the closing price for our common stock on the date of the award. The options become exercisable as follows: one-third on the first anniversary of the award, one-third on the second anniversary of the award and one-third on the third anniversary of the award.

Salary and Cash Incentive Awards in Proportion to Total Compensation

The following table sets forth the percentage of each Named Executive Officer's total compensation that we paid in the form of base salary and bonus.

Name	Year	Percentage of Total Compensation
Billy F. Mitcham, Jr.	<u>Year</u> 2014	63%
	2013	60%
	2012	74%
Robert P. Capps	2014	67%
	2013	64%
	2012	75%
Guy Malden	2014	65%
	2013	62%
	2012	73%
Paul Guy Rogers	2014	69%
	2013	66%
	2012	77%

Employment Agreement with Billy F. Mitcham, Jr.

Effective January 15, 1997, we entered into an employment agreement with Mr. Mitcham for a term of five years, beginning January 15, 1997, which term is automatically extended for successive one-year periods unless either party gives written notice of termination at least 30 days prior to the end of the current term. Pursuant to the employment agreement, we are required to maintain a term life insurance policy in an amount equal to at least three times Mr. Mitcham's annual salary.

Outstanding Equity Awards Value at Fiscal Year-End Table

The following table provides information concerning unexercised options, stock that has not vested and equity incentive plan awards for our Named Executive Officers.

	Outstandin	<u>g Equity Awards as of Janua</u>	<u>ry 31, 2014</u>					
	Option Awards					Stock Awards		
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested	Market Value of Shares or Units of Stock That Have Not Vested ⁽⁶⁾		
Billy F. Mitcham, Jr.	25,000		4.16	7-13-14	20,000 ⁽³⁾	302,000		
	50,000	—	6.18	1-31-15				
	50,000	—	16.64	3-31-16				
	25,000	—	17.70	9-07-17				
	75,000	—	4.65	7-23-19				
	30,000	—	6.40	5-27-20				
	25,000	—	13.73	5-13-21				
	20,000	10,000 ⁽¹⁾	19.06	5-16-22				
	—	30,000 ⁽²⁾	14.63	5-13-23				
Robert P. Capps	80,000	—	12.57	6-26-16	6,667 ⁽⁴⁾	100,672		
	15,000	—	17.70	9-07-17				
	11,667	_	4.65	7-23-19				
	5,000	—	6.40	5-27-20				
	15,000	—	13.73	5-13-21				
	10,000	5,000 ⁽¹⁾	19.06	5-16-22				
	_	15,000 ⁽²⁾	14.63	5-13-23				

		Option Awards	Stock Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested	Market Value of Shares or Units of Stock That Have Not Vested ⁽⁶⁾
Guy Malden	11,667		4.65	7-23-19	6,667(4)	100,672
	5,000	—	6.40	5-27-20		
	15,000	—	13.73	5-13-21		
	10,000	5,000 ⁽¹⁾	19.06	5-16-22		
		15,000 ⁽²⁾	14.63	5-13-23		
Paul Guy Rogers	10,000	—	6.18	1-31-15	4,400 ⁽⁵⁾	66,440
	15,000	_	16.64	3-31-16		
	15,000	_	17.70	9-07-17		
	10,000	_	4.65	7-23-19		
	15,000	_	6.40	5-27-20		
	10,000	_	13.73	5-13-21		
	6,667	3,333 ⁽¹⁾	19.06	5-16-22		
		10,000 ⁽²⁾	14.63	5-13-23		

(1) The remaining stock options granted on May 16, 2012 became exercisable on May 16, 2014.

(2) The stock options granted on May 13, 2013 became or become exercisable as follows: one-third on May 13, 2014; one-third on May 13, 2015; and one-third on May 13, 2016

(3) Shares of unvested restricted stock awards became or become exercisable as follows: 5,000 on May 13, 2014; 5,000 on May 16, 2014; 5,000 on May 13, 2015; and 5,000 on May 13, 2016.

(4) Shares of unvested restricted stock awards became or become exercisable as follows: 1,666 on May 13, 2014; 1,667 on May 16, 2013; 1,667 on May 13, 2015; and 1,667 on May 13, 2016.

(5) Shares of unvested restricted stock awards became or become exercisable as follows: 1,100 on May 13, 2014; 1,100 on May 16, 2014; 1,100 on May 13, 2015; and 1,100 on May 13, 2016.

(6) Based on the closing price of \$15.10 on January 31, 2014.

Option Exercises and Stock Vested

The following table provides information concerning each vesting of stock, including restricted stock, restricted stock units and similar instruments, during the fiscal year ended January 31, 2014 on an aggregated basis with respect to each of our Named Executive Officers.

Option Exercises and Stock Vested for the Year Ended January 31, 2014

	Option A	wards	Stock Awards		
Name	Number of Shares Acquired on Exercise	Value Realized on Exercise	Number of Shares Acquired on Vesting	Value Realized on Vesting	
	(#)	(\$)	(#)	(\$)	
Billy F. Mitcham, Jr.	30,000	482,100	7,667	114,650	
Robert P. Capps			3,167	47,226	
Guy Malden	_	—	3,167	47,226	
Paul Guy Rogers	12,500	163,437	2,100	31,316	

Potential Payments upon Termination or Change in Control

We have entered into arrangements with certain of our Named Executive Officers that provide additional payments and/or benefits upon a change in control of our company and/or in connection with the termination of the Named Executive Officer's employment. For our Chief Executive Officer, Mr. Mitcham, these agreements include both an employment agreement and the award agreements that govern his equity awards. For the

remaining Named Executive Officers, these agreements consist solely of the award agreements governing the officers' equity awards. The following is a discussion of each of these arrangements and their applicability to a termination of employment and/or a change in control of our company. Unless otherwise provided, the dollar amounts disclosed assume that the triggering event for the payment(s) and/or benefit(s) was January 31, 2014, and the value of our stock on that day was \$15.10. As a result, the dollar amounts disclosed are merely estimates of the amounts or benefits that would be payable to the Named Executive Officers upon their termination or a change in control of our company. The actual dollar amounts can only be determined at the time of the Named Executive Officer's termination or the change in control.

Equity-Based Plans and Awards

Outstanding stock options and shares of restricted stock awarded to the Named Executive Officers under our Plan will become fully vested and, in the case of stock options, exercisable, upon the Named Executive Officer's death or termination of employment due to disability or upon a change in control of our company. Such options that become vested and exercisable due to death or disability will remain exercisable until the earlier to occur of (1) the end of the original term of the option or (2) the date that is one-year following the date of death or termination of employment due to disability, as applicable; options that become vested and exercisable due to a change of control will remain exercisable for the applicable term as provided under the option award agreement. Any unvested shares of restricted stock and any outstanding stock options (whether vested or unvested) will be cancelled without payment if the Named Executive Officer is terminated for any reason other than death or disability, (1) any unvested shares of restricted stock or unvested stock options will also be cancelled without payment, and (2) any vested stock options will not be cancelled but will remain exercisable for the lesser of the original term of the option or the three-month period following the date of termination. We believe these triggering events represent the general market triggering events found in comparable agreements of companies against whom we compete for executive-level talent.

For purposes of our equity compensation plans, termination for cause will result if: (1) the officer acts dishonestly, and the direct or indirect consequence (or intended consequence) of such action is a personal enrichment to that executive at the expense of our company or any affiliate, (2) the officer is unable to perform his duties in a satisfactory manner (as determined in good faith by our Board) or (3) the officer fails to consistently perform his duties at a level that our Board has, by written notice, informed the officer is expected from him. An officer will be considered "disabled" if he becomes entitled to benefits under our long-term disability plan.

Pursuant to our Plan, a change in control may occur in two ways. If an equity award is subject to Section 409A of the Code, any event that would be considered a change in control under Section 409A of the Code will also trigger accelerated vesting for the award. If the equity award is not subject to Section 409A of the Code, a change of control means the occurrence of any of the following events:

- we are not the surviving entity in any merger, consolidation or other reorganization (or we survive only as a subsidiary);
- we sell, lease or exchange all or substantially all of our assets to a third party;
- we dissolve or liquidate our company;
- any person or entity acquires ownership of our securities which represent 35% or more of the voting power of our then outstanding securities entitled to vote in the election of directors; or
- a change in the composition of our Board where less than the majority of the directors are "incumbent directors." An "incumbent director" is any director as of the date the Plan was adopted or, generally, any director who is elected to our Board after such time by the vote of at least a majority of the directors in place at the time of the Plan's adoption.

The following chart shows the amounts that each of our Named Executive Officers would have received due to the accelerated vesting on January 31, 2014 for a termination of employment due to death or disability or a change in control. In order for our Named Executive Officers to receive value from the acceleration of vesting

for stock options, the value of the stock on January 31, 2014 (the date of the accelerated vesting and hypothetical exercise of such options) must be greater than the exercise price of the option. As of January 31, 2014, the Named Executive Officers held unvested stock options with an exercise price below \$15.10, as indicated in the table below for accelerated stock options.

Value of Accelerated Equity Awards as of January 31, 2014

Name	Number of Securities (#)	Value ⁽¹⁾ (\$)
Billy F. Mitcham, Jr. Restricted Stock Stock Options Total	20,000 30,000 50,000	302,000 14,100 316,100
Robert P. Capps Restricted Stock Stock Options Total	6,667 15,000 21,667	100,672 7,050 107,722
Guy Malden Restricted Stock Stock Options Total	6,667 15,000 21,667	100,672 7,050 107,722
Paul Guy Rogers Restricted Stock Stock Options Total	4,400 10,000 14,400	66,440 4,700 71,140

(1) The values for the restricted stock were calculated by multiplying (a) the number of unvested restricted stock held by each officer on January 31, 2014 by (b) \$15.10, the fair market value of the stock on that day. The values for the accelerated stock options were calculated by multiplying (a) the number of unvested stock options with an exercise price less than \$15.10 by (b) the difference between \$15.10 and the exercise price of the stock options.

Employment Agreement with Billy F. Mitcham, Jr.

For the reasons described in greater detail within our Compensation Discussion and Analysis, we have entered into an employment agreement with Mr. Mitcham, the general terms of which are described above. Mr. Mitcham's severance provisions are dependent upon the following terms:

- A "for cause" termination will occur if Mr. Mitcham: (1) materially breaches his employment agreement, (2) appropriates a material business opportunity for his own personal benefit, (3) engages in fraudulent or dishonest activities with respect to us or our business affairs or (4) is convicted of or is indicted for a criminal offense.
- "Constructive termination" is defined as: (1) a material reduction in Mr. Mitcham's duties and responsibilities without his prior consent or (2) a reduction in, or our failure to pay, any portion of Mr. Mitcham's base salary.
- Mr. Mitcham will have suffered a "disability" if, for physical or mental reasons, he is unable to perform his duties under the employment agreement for a period of 120 consecutive days or 180 days during any 12 month period.

Pursuant to his employment agreement, in the event Mr. Mitcham's employment is terminated by us "without cause" or he terminates his employment with us within 60 days following a "constructive termination," Mr. Mitcham will be entitled to a severance payment of \$450,000, payable in equal monthly payments over a period of 24 months following the date of termination. If Mr. Mitcham's employment with us is terminated as a result of his disability, we will continue to pay to him his base salary (determined as of the date of his disability) for the lesser of (1) six consecutive months or (2) the period until disability insurance benefits commence under any disability insurance coverage furnished by us to Mr. Mitcham. Under our long-term disability insurance program, coverage commences on the 61st day after the covered employee is unable to perform his or her job functions, thus Mr. Mitcham would receive \$94,417, which is two months of salary calculated according to the base salary Mr. Mitcham was receiving as of January 31, 2014.

Mr. Mitcham's employment agreement provides for automatic expiration of any stock options Mr. Mitcham may hold at the time of either a for cause termination or a resignation. Upon a termination for any reason other than a termination for cause, resignation or death, his options will remain exercisable and will vest and expire in accordance with the terms of the applicable option agreements. If Mr. Mitcham's employment with us is terminated as a result of his death, all of his outstanding options will become fully vested and exercisable as of the date of his death. All options will expire on the one-year anniversary of his death. The value of the accelerated vesting upon these events in accordance with the option agreements is disclosed in the "Value of Accelerated Equity Awards as of January 31, 2014" table above. The employment agreement does not address specific treatment for any other type of equity award that Mr. Mitcham may hold upon his termination of employment, thus all equity awards other than options will be governed by the terms and conditions of the individual award agreements.

Mr. Mitcham's employment agreement contains standard non-solicitation and non-compete provisions that are effective during the term of the employment agreement and for 24 months following his date of termination.

DIRECTOR COMPENSATION

General

Each year, the Compensation Committee reviews the total compensation paid to our non-employee directors and Non-Executive Chairman of our Board. The purpose of the review is to ensure that the level of compensation is appropriate to attract and retain a diverse group of directors with the breadth of experience necessary to perform our Board's duties and to fairly compensate directors for their service. The review includes the consideration of qualitative and comparative factors. To ensure directors are compensated relative to the scope of their responsibilities, the Compensation Committee considers: (1) the time and effort involved in preparing for Board, committee and management meetings and the additional duties assumed by committee chairs; (2) the level of continuing education required to remain informed of broad corporate governance trends and material developments and strategic initiatives within our company; and (3) the risks associated with fulfilling their fiduciary duties.

The following table sets forth a summary of the compensation we paid to our non-employee directors during the fiscal year ended January 31, 2014. Messrs. Mitcham and Capps, who are our full-time employees, receive no compensation for serving as directors.

Director Compensation for the Year Ended January 31, 2014

Name	Fees Earned or Paid in Cash	Stock Awards ⁽¹⁾	Option Awards	Total
	(\$)	(\$)	(\$)	<u>Total</u> (\$)
Peter H. Blum	100,500	54,450	_	154,950
John F. Schwalbe	54,000	54,450	_	108,450
R. Dean Lewis	49,000	54,450	_	103,450
Robert J. Albers	49,000	54,450	—	103,450

(1) This column includes the grant date fair value of the stock awards computed in accordance with FASB ASC Topic 718 determined without regard to forfeitures. These amounts reflect our accounting valuation of these awards and do not correspond to the actual value that will be recognized by our directors. The assumptions used in the calculation of these amounts are discussed in Note 13 to our audited financial statements for the fiscal year ended January 31, 2014 included in our Annual Report on Form 10-K. The awards for which compensation expense was recognized include 3,300 shares of restricted stock awarded to each of Messrs. Blum, Schwalbe, Lewis and Albers on January 22, 2014. The shares granted vest as follows: one-third on April 30, 2014, one-third on July 31, 2014 and one-third on October 31, 2014. The shares of restricted stock set forth in the table above were the only outstanding equity awards held by our non-employee directors as of January 1, 2014.

Retainer and Fees

Each non-employee director receives the following compensation:

	Effective July 31, 2013	Prior to July 31, 2013
	\$	\$
Annual retainers:		
Each Board member	35,000	30,000
Non-executive chairman	60,000	50,000
Member of Audit Committee	7,500	7,500
Chairman of Audit Committee	5,000	5,000
Member of Compensation Committee	4,000	4,000
Chairman of Compensation Committee	4,000	4,000
Each Board meeting attended	2,000	1,000



Equity-Based Compensation

In addition to cash compensation, our non-employee directors are eligible, at the discretion of our full Board, to receive discretionary grants of stock options or restricted stock or any combination thereof under our equity compensation plans. On January 22, 2014, our Board granted awards of 3,300 shares of restricted stock to each of our non-employee directors. The shares granted vest as follows: one-third on April 30, 2014, one-third on July 31, 2014 and one-third on October 31, 2014.

PROPOSAL 2: ADVISORY VOTE TO APPROVE NAMED EXECUTIVE OFFICER COMPENSATION

We are asking shareholders to approve, on the advisory basis, the compensation of our Named Executive Officers as disclosed in this Proxy Statement in accordance with the compensation disclosure rules of the SEC. Based on the shareholder vote on the frequency of an advisory vote on executive compensation that took place at our 2012 Annual Meeting, our Board determined to hold the vote on executive compensation annually until the next shareholder vote on the frequency of such advisory vote. Thus, our shareholder advisory vote to approve executive compensation currently takes place annually, and the next such vote will take place at our 2015 Annual Meeting.

We have designed our compensation programs to (1) recruit, develop and retain key executive officers responsible for our success and (2) motivate management to enhance long-term shareholder value. To achieve these goals, our executive compensation decisions are based on the following principal objectives:

Objective	How Our Executive Compensation Program Achieves This Objective
Providing a competitive compensation package that attracts, motivates and retains qualified and highly-skilled officers that are key to our long-term success	
	We analyze compensation packages provided to the officers of other companies in our industry and with whom we compete for management level employees. Based on this analysis, we attempt to provide a base compensation package that is competitive with those companies.
Rewarding individual performance by ensuring a meaningful link between our operational performance and the total compensation received by our officers	
	We consider our overall financial performance and the performance of each individual when determining cash incentive awards. A meaningful portion of incentive compensation consists of long-term equity awards.
Avoiding policies and practices that create risks that might have a material adverse effect on us	
	We do not award multi-year guaranteed bonuses or disproportionate equity grants that provide unlimited upside with no downside. We do not utilize specific performance metrics in determining compensation.
Avoiding the creation of an environment that might cause undue pressure to meet specific financial goals	We do not use specific prospective financial

We do not use specific prospective financial targets in determining compensation awards.

We do not engage in certain compensation practices, including the following: (1) the re-pricing of underwater stock options; (2) excessive perquisites; (3) liberal change in control provisions; and (4) tax gross-ups. During the fiscal year ended January 31, 2014, our financial results were less than in the previous two

year. However, we did maintain profitable operations and maintained a strong and secure financial position. In response to the lower financial performance, the incentive compensation awards to our Named Executive Officers was reduced and base salaries were not increased for fiscal 2015.

We urge shareholders to read the "Compensation Discussion and Analysis" section of this proxy statement, which describes in more detail how our executive compensation policies and procedures operate and are designed to achieve our compensation objectives, as well as the Summary Compensation Table and other related compensation tables and narrative, which provide detailed information of the compensation of our Named Executive Officers. The Compensation Committee and our Board believe that the policies and procedures articulated in the "Compensation Discussion and Analysis" are effective in achieving our goals and that the compensation of our Named Executive Officers reported in this proxy statement has contributed to our long-term success.

In accordance with Section 14A of the Exchange Act, and as a matter of good corporate governance, we are asking shareholders to adopt the following resolution at the 2014 Annual Meeting of Shareholders:

"RESOLVED, that the shareholders of Mitcham Industries, Inc. approve, on an advisory basis, the compensation of Mitcham Industries, Inc.'s Named Executive Officers as disclosed in Mitcham Industries, Inc.'s Proxy Statement for the 2014 Annual Meeting of Shareholders pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, the Summary Compensation Table and the related compensation tables and disclosure."

This advisory vote, commonly referred to as a "say-on-pay" vote, is not binding on our Board or our Compensation Committee, will not overrule any decisions made by our Board or our Compensation Committee, or require our Board or its Compensation Committee to take any action. Although the vote is non-binding, the Compensation Committee will take into account the outcome of the vote when considering future executive compensation decisions. In particular, to the extent there is any significant vote against our Named Executive Officers' compensation as disclosed in this proxy statement, we will consider our shareholders' concerns and the Compensation Committee will evaluate whether any actions are necessary to address those concerns.

Our Board recommends a vote "FOR" the adoption of the advisory resolution approving the compensation of our Named Executive Officers.

PROPOSAL 3: RATIFICATION OF THE SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has selected Hein & Associates LLP as our independent registered public accounting firm to conduct our audit for the fiscal year ending January 31, 2015.

The engagement of Hein & Associates LLP has been recommended by the Audit Committee and approved by our Board annually. The Audit Committee has reviewed and discussed the audited consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended January 31, 2014, and has recommended, and our Board has approved, their inclusion therein. See "Audit Committee Report" included elsewhere in this proxy statement.

Although shareholder ratification of the selection of Hein & Associates LLP is not required, the Audit Committee and our Board consider it desirable for our shareholders to vote upon this selection. Even if the selection is ratified, the Audit Committee may, in its discretion, direct the appointment of a different independent registered public accounting firm at any time during the year if it believes that such a change would be in the best interests of our shareholders and us.

One or more representatives of Hein & Associates LLP are expected to be present at the Annual Meeting and will have the opportunity to make a statement if they desire to do so. The representatives of Hein & Associates LLP are expected to be available to respond to appropriate questions.

Our Board recommends a vote "FOR" the ratification of the selection of Hein & Associates LLP as our independent registered public accounting firm for the fiscal year ending January 31, 2015.

FEES AND EXPENSES OF HEIN & ASSOCIATES LLP

The following table sets forth the amount of audit fees, audit-related fees and tax fees billed or expected to be billed by Hein & Associates LLP, our independent registered public accounting firm, for the fiscal years ended January 31, 2014 and January 31, 2013:

	2014	2013
Audit fees ⁽¹⁾	\$403,026	\$408,700
Audit-related fees	_	3,500
Tax fees	-	—
All other fees		
Total Fees	\$403,026	\$412,200

(1) Includes the audit of our annual consolidated financial statements and the review of our Quarterly Reports on Form 10 Q.

The Audit Committee also has approved a policy that requires committee pre-approval of the compensation and terms of service for audit services and any permitted non-audit services based on ranges of fees, and any changes in terms, conditions and fees resulting from changes in audit scope or other matters. Any proposed audit or non-audit services exceeding the pre-approved fee ranges require additional pre-approval by the Audit Committee or its chairman. All of the above fees were pre-approved pursuant to this policy.

AUDIT COMMITTEE REPORT

The Audit Committee was established to implement and to support oversight function of the Board of Directors with respect to the financial reporting process, accounting policies, internal controls and independent registered public accounting firm of Mitcham Industries, Inc.

The Board of Directors, in its business judgment, has determined that each of Messrs. Schwalbe, Lewis and Albers is an independent director, as that term is defined in Rule 5605 of the NASDAQ Marketplace Rules, and meets the Securities and Exchange Commission's additional independence requirements for members of audit committees. In addition, the Board of Directors has determined that each member of the Audit Committee is financially literate and that Mr. Schwalbe has the necessary accounting and financial expertise to serve as chairman. The Board of Directors has determined that each of the members of the Audit Committee is an "audit committee financial expert" following a determination that they each met the criteria for such designation under the Securities and Exchange Commission's rules and regulations.

In fulfilling its responsibilities, the Audit Committee:

- reviewed and discussed the audited financial statements contained in Mitcham Industries, Inc.'s Annual Report on Form 10-K for the fiscal year ended January 31, 2014 with management and the independent registered public accounting firm, Hein & Associates LLP;
- discussed with the independent registered public accounting firm the matters required to be discussed by Auditing Standard No. 16, "*Communications with Audit Committees*" as adopted by the Public Company Accounting Oversight Board;
- received from the independent registered public accounting firm the written disclosures and the letter required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant's communications with the audit committee concerning independence and discussed the independent registered public accounting firm's independence with the firm; and
- considered the compatibility of non-audit services with the independent registered public accounting firm's independence.

Based on these reviews and discussions, the Audit Committee recommended to the Board of Directors that the audited financial statements be included in Mitcham Industries, Inc.'s Annual Report on Form 10-K for the fiscal year ended January 31, 2014.

Respectfully submitted by the Audit Committee,

John F. Schwalbe (Chairman) R. Dean Lewis Robert J. Albers

2014 ANNUAL REPORT

A copy of our 2014 Annual Report to Shareholders, which consists of our Annual Report on Form 10-K for the fiscal year ended January 31, 2014, accompanies this proxy statement. Except for the financial statements included in the 2014 Annual Report that are specifically incorporated by reference herein, the 2014 Annual Report is not incorporated in this proxy statement and is not to be deemed part of this proxy soliciting material.

We have filed our Form 10-K for the fiscal year ended January 31, 2014 with the Securities and Exchange Commission. It is available free of charge at the Securities and Exchange Commission's web site at *www.sec.gov* and our website at *www.mitchamindustries.com*. Upon written request by a shareholder, we will mail, without charge, a copy of our Form 10-K, including the financial statements and financial statement schedules, but excluding exhibits to the Form 10-K. Exhibits to the Form 10-K are available upon payment of a reasonable fee, which is limited to our expenses in furnishing the requested exhibit. Such requests should be directed to our Corporate Secretary at Mitcham Industries, Inc., P.O. Box 1175, Huntsville, Texas 77342-1175.

SHAREHOLDER PROPOSALS AND DIRECTOR NOMINATIONS

Pursuant to the Securities and Exchange Commission's rules and regulations, shareholders interested in submitting proposals for inclusion in our proxy materials and for presentation at our 2015 Annual Meeting of Shareholders may do so by following the procedures set forth in Rule 14a-8 under the Exchange Act. In general, shareholder proposals must be received by our Corporate Secretary at Mitcham Industries, Inc., P.O. Box 1175, Huntsville, Texas 77342-1175 no later than Monday, February 9, 2015 to be eligible for inclusion in our proxy materials.

In addition to the requirements of Rule 14a-8, and as more specifically provided for in Sections 13 and 14 of our Bylaws, in order for a nomination of persons for election to our Board or a proposal of business to be properly brought before the 2015 Annual Meeting of Shareholders, it must be either specified in the notice of the meeting given by our Corporate Secretary or otherwise brought before the meeting by or at the direction of our Board or by a shareholder entitled to vote and who complies with the notice procedures set forth in our Bylaws. A shareholder making a nomination for election to our Board or a proposal of business for the 2015 Annual Meeting of Shareholders must deliver proper notice to our Corporate Secretary not less than 70 days nor more than 100 days prior to the meeting. For additional information about shareholder nominations and proposals, see "Corporate Governance — Director Nomination Process."

Detailed information for submitting shareholder proposals and director nominations is available upon written request to our Corporate Secretary at our principal executive offices at Mitcham Industries, Inc., P.O. Box 1175, Huntsville, Texas 77342-1175.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE SHAREHOLDER MEETING TO BE HELD ON JULY 24, 2014.

The Notice of Annual Meeting of Shareholders, our Proxy Statement for the Annual Meeting and our Annual Report to Shareholders for the fiscal year ended January 31, 2014 are available at www.proxyvote.com

MITCHAM INDUSTRIES, INC. 8141 SH 75 SOUTH HUNTSVILLE, TX 77340

VOTE BY INTERNET - <u>www.proxyvote.com</u>

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

VOTE IN PERSON

If you would like to attend the Annual Meeting and vote in person, please review the requirements in the accompanying proxy statement. You can find directions to the Annual Meeting by visiting our website at http://www.mitchamindustries.com and clicking on the "Investor Relations" link.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

M76211-D5/315

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

KEED THIS DODTION FOR YOUR PECODOS

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

				W/02111 04010				RECORDS
		ARD IS VA			DETACH AND RE	TURN 1	THIS POR	TION ONLY
MITCHAM INDUSTRIES, INC. The Board of Directors recommends you vote FOR the following:	For All	Withhold All		To withhold authority to vote for any in mark "For All Except" and write the nominee(s) on the line below.			•	
1. ELECTION OF DIRECTORS Nominees:								
 01) Billy F. Mitcham, Jr. 02) Peter H. Blum 03) Robert P. Capps 04) R. Dean Lewis 05) John F. Schwalbe 06) Robert J. Albers 								
The Board of Directors recommends you vote FOR the foll	owing	proposal:				For	Against	Abstain
2. ADVISORY VOTE TO APPROVE NAMED EXECUTIVE OF	FICER	COMPEN	SATION.					
The Board of Directors recommends you vote FOR the foll	owing	proposal:						
3. RATIFICATION OF THE SELECTION OF HEIN & ASSOC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING JA				INDUSTRIES, INC.'S INDEPENDENT RE	EGISTERED PUBLIC			
NOTE: In their discretion, the proxies are authorized to vote adjournment or postponement thereof.	e upon	such othe	er busine:	ss as may properly come before the An	nual Meeting or any			
Please indicate if you plan to attend this meeting.	Yes	No □						
Please sign exactly as your name(s) appear(s) hereon. W executor, administrator, or other fiduciary, please give full ti should each sign personally. All holders must sign. If a corpora sign in full corporate or partnership name by authorized officer.	tle as ation or	such. Join	t owners					
			[]		
Signature [PLEASE SIGN WITHIN BOX] Date			L	Signature (Joint Owners)	Date	_		

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE SHAREHOLDER MEETING TO BE HELD ON JULY 24, 2014.

The Notice of Annual Meeting of Shareholders, our Proxy Statement for the Annual Meeting and our Annual Report to Shareholders for the fiscal year ended January 31, 2014 are available at *www.proxyvote.com*

M76212-P54315

MITCHAM INDUSTRIES, INC. PROXY SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS FOR THE ANNUAL MEETING OF SHAREHOLDERS TO BE HELD ON THURSDAY, JULY 24, 2014 AT 9:00 AM LOCAL TIME

The undersigned hereby constitutes and appoints Billy F. Mitcham, Jr. and Robert P. Capps, and each of them, the attorneys and proxies of the undersigned with full power of substitution to appear and to vote all of the shares of the common stock of Mitcham Industries, Inc. held of record by the undersigned on May 27, 2014, as if personally present at the Annual Meeting of Shareholders to be held on Thursday, July 24, 2014, and any adjournment or postponement thereof, as designated on the reverse.

Each signatory to this proxy acknowledges receipt from Mitcham Industries, Inc., prior to execution of this proxy, of a notice of Annual Meeting of Shareholders and a proxy statement dated June 9, 2014.

This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the recommendations of the Board of Directors, as noted on the reverse. This proxy also delegates discretionary authority to vote upon such other matters as may properly come before the Annual Meeting and at any adjournment or postponement thereof. Please see the accompanying proxy statement for additional details.

YOU ARE URGED TO DATE, SIGN AND RETURN THIS PROXY PROMPTLY IN THE ENVELOPE PROVIDED. IT IS IMPORTANT FOR YOU TO BE REPRESENTED AT THE ANNUAL MEETING. THIS PROXY MUST BE RECEIVED BY MAIL IN THE POSTAGE-PAID ENVELOPE PROVIDED OR ELECTRONICALLY VIA THE INTERNET AT WWW.PROXYVOTE.COM OR BY PHONE AT 1-800-690-6903.

(Continued and to be signed on reverse side)