

AMENDED AND RESTATED BYLAWS

of

THE CALIFORNIA INSTITUTE OF TECHNOLOGY

June 15, 2018

Section 1. Board of Trustees

The activities and affairs of the California Institute of Technology (referred to in this and the following sections as the "Institute") shall be conducted by and all corporate powers shall be exercised by or under the direction of the Board of Trustees (sometimes referred to as the "Board"). The authorized number of members of the Board shall be the sum of forty-six Trustees (including the President of the Institute as *ex officio* Trustee) and the number of Senior Trustees serving at any given time. The Institute shall have no members and any action which would otherwise require approval by the members shall require only approval of the Board.

a. Board Powers

In addition to the general powers conferred by these Bylaws, the specific powers and duties of the Board of Trustees shall include:

- (1) Determination of policy;
- (2) Legal responsibility for affairs of the Institute;
- (3) Review of reports for assurance that such policy is being executed;
- (4) Power to act directly on any matter in event of emergency;
- (5) Election, appointment or removal of members of the Board, Officers and committee members; and
- (6) Election as provided below of Senior Trustee, Life Member, Chair Emeritus and President Emeritus.

The affirmative vote of a majority of the members of the Board in office shall be required to remove a member of the Board from office.

b. Trustee

(1) Qualifications

The Trustees shall have the qualifications provided in the Articles of Incorporation and these Bylaws. Upon the date a Trustee reaches age 72, there shall be deemed to be created a Trustee vacancy for the remainder of the term to which the Trustee then turning 72 was elected, and such vacancy may be filled in the manner prescribed in Paragraph 1.b. (2) below.

(2) Terms of Office

Except as otherwise provided in this Section 1, Trustees shall serve for five-year terms and, other than Young Alumni Trustees, may succeed themselves in office. The terms of office for the Trustees, other than Young Alumni Trustees, shall be classified so that one-fifth of the terms expire at adjournment of each Annual Meeting of the Board. A vacancy in any Trustee position may be filled at any time for the remainder of the term by the remaining members of the Board, even if less than a quorum.

c. President as Ex Officio Trustee

While serving as duly elected President, the President of the Institute shall serve *ex officio* as Trustee with all the powers, rights, privileges and responsibilities inherent in the office of Trustee.

d. Young Alumni Trustees

Up to five of the forty-six Trustee positions established in the first paragraph of this Section 1 may be reserved by the Board for Young Alumni Trustees. Such Young Alumni Trustees shall be individuals ordinarily not more than 45 years of age at the

time of election who have been awarded one or more academic degrees by the Institute and who, in the judgment of the Board, are individuals of exceptional accomplishment whose participation on the Board would be of special value to the operation of the Board. Such Trustees shall have all powers, rights, privileges and responsibilities inherent in the office of Trustee. Young Alumni Trustees shall be nominated and elected in the same manner as other Trustees, except that they shall be specifically designated as Young Alumni Trustees. Young Alumni Trustees shall serve a single non-renewable term of five years and may not be considered for election to the office of Trustee for a period of at least two years following the expiration of their Young Alumni Trustee term. Unless the context otherwise requires, the terms "Trustee," "Trustees," "Board of Trustees," "Board," and "members of the Board" as used in these Bylaws shall include Young Alumni Trustees.

e. Senior Trustee

The Board may elect a Trustee who reaches age seventy-two and who desires to continue active service on the Board to the office of Senior Trustee. The Board may also elect individuals who have not previously held the office of Trustee and are seventy-two years of age or older to the office of Senior Trustee if, in the judgment of the Board, they are individuals of exceptional accomplishment who exhibit a strong commitment to the Institute and whose service as Senior Trustee will be especially beneficial to the Institute. There is no limit on the number of Senior Trustees who may serve as members of the Board at any given time. Senior Trustees shall serve as members of the Board with the full rights, privileges and responsibilities of Trustees. When a Trustee first attains Senior Trustee status, such individual shall serve as a Senior Trustee for a period equal to the balance of the term for which he or she was elected as a Trustee prior to reaching age seventy-two and subsequently may be re-elected to the office of Senior Trustee by the Board, upon recommendation of the Nominating Committee, for additional five-year terms. Individuals elected directly to the office of Senior Trustee without having previously served as Trustee shall serve as Senior Trustee for the period between their initial election date and the next Annual Meeting and subsequently may be re-elected to the office of Senior Trustee by the Board, upon recommendation of the Nominating Committee, for five-year renewable terms. Unless the context otherwise requires, the terms "Trustee," "Trustees," "Board of Trustees," "Board," and "members of the Board" as used in these Bylaws shall include Senior Trustees.

f. Life Member

Upon termination of their trusteeship, Trustees or Senior Trustees who have served in either capacity for at least five years and whom the Board wishes to recognize for dedicated service and with whom the Board wishes the Institute to maintain close ties may be elected Life Members by the Board upon recommendation of the Nominating Committee. There is no limit on the number of Life Members who may serve at any given time. Life Members shall have the same privileges as a member of the Board to attend and speak at its meetings, but shall have no other rights, including voting rights, and no duties of a Trustee, except as expressly agreed in writing. They may serve as Consulting Participants or Advisory Participants of Standing and Special Committees of the Board and may be given special assignments by the Chair of the Board or the President. Unless the context otherwise requires, the terms "Trustee," "Trustees," "Chair of the Board," "Board of Trustees," "Board," and "members of the Board" as used in these Bylaws shall not include Life Members.

g. Chair Emeritus and President Emeritus

Following an individual's service to the Institute as Chair of the Board or President, the Board may designate such former Chair or former President as Chair Emeritus or President Emeritus. There is no limit on the number of Chairs Emeriti or Presidents Emeriti who may serve at any given time.

Section 2. Officers

a. Officers

The Corporate Officers of the Institute shall be a Chair of the Board of Trustees, such number of Vice Chairs of the Board as the Board may determine, a President, a Provost, a Vice President of Administration and Chief Financial Officer, a Vice President for Development and Institute Relations, a Vice President for Student Affairs, a Vice President and Director of the Jet Propulsion Laboratory, a General Counsel, a Controller, a Treasurer, a Chief Investment Officer, a Secretary, and, at the discretion of the President, there may be a Vice President for Strategy Implementation. There may be other Vice Presidents, Assistant Controllers, Assistant Treasurers, Assistant Secretaries, and such other Officers deemed necessary for proper management of the affairs of the Institute. All Officers shall be elected by the Board. The Chair and each Vice Chair shall be members of the Board. The Chair and each Vice Chair shall be elected each year by the Board at its Annual Meeting for a term of office which shall expire on, but shall include, the date of its Annual Meeting next succeeding such election. Unless

the Board otherwise determines, the other Officers, except the President, need not be members of the Board; and all shall hold their offices at the pleasure of the Board.

b. Officers' Powers and Duties

Each Officer shall have such powers and duties vested in that office by the provisions of these Bylaws, such additional powers and duties as the Board may confer in that office, and in the absence of any contrary provision in these Bylaws or as otherwise provided by the Board, the powers conferred by applicable California statute.

- (1) The Chair of the Board shall
 - (a) Preside at the Board meetings;
 - (b) Serve as Chair of the Executive Committee unless a Vice Chair of the Board has been designated by the Board to serve as Chair of the Executive Committee;
 - (c) Act as the representative of the Board in dealing with the administration and faculty of the Institute and with its publics;
 - (d) Foster communication with faculty, administration and students;
 - (e) Maintain especially close liaison with the President, being available for advice and support at all times, particularly in external affairs;
 - (f) Act as the representative of the Board in event of an emergency.
- (2) Each Vice Chair shall
 - (a) Have the power to act as Chair of the Board or of the Executive Committee when the Chair is absent or incapacitated.
- (3) The President shall
 - (a) Be the chief executive officer of the Institute and preside over and administer the affairs of the Institute under authority of the Board;
 - (b) Exercise and discharge the functions and duties which ordinarily devolve upon the president of an educational institution of the rank and character of the Institute;
 - (c) Serve at the pleasure of the Board;
 - (d) Be a Trustee *ex officio* as provided in Paragraph 1.c. above;
 - (e) Execute decisions and policies as designated by the Board;
 - (f) Keep the Board informed of administrative, faculty, student and other pertinent affairs;
 - (g) Submit recommendations to the Board on matters of policy;
 - (h) Establish and maintain relationships with the public;
 - (i) Propose persons for election as Corporate Officers, with the exception of Chair of the Board, Vice Chair of the Board, and President.
- (4) The Provost shall
 - (a) Be responsible to the President;
 - (b) Serve as chief academic officer of the Institute;
 - (c) Have the power to act for the President when the President is absent or incapacitated;
 - (d) Recommend policies and administer procedures concerning academic programs, including teaching and research;
 - (e) Recommend faculty appointments to the President.

The Provost may have such other powers and duties delegated by the President.

- (5) The Vice President of Administration and Chief Financial Officer shall
 - (a) Be responsible to the President;
 - (b) Be the chief financial officer of the Institute;
 - (c) Recommend policy and administer procedures concerning administrative and financial functions;
 - (d) Develop capital and operating budgets;
 - (e) Maintain the financial records of the Institute;
 - (f) Provide necessary financial and administrative services for the Institute;
 - (g) Oversee the negotiation and administration of the prime contract between the Institute and the National Aeronautics and Space Administration for the operation of the Jet Propulsion Laboratory;
 - (h) Exercise and perform all of the powers and duties of the Treasurer when there is no Treasurer in office.

The Vice President of Administration and Chief Financial Officer may be assigned other responsibilities and duties from time to time by the President.

- (6) The Vice President for Development and Institute Relations shall
- (a) Be responsible to the President;
 - (b) Be the Institute's chief fund-raiser;
 - (c) Develop and implement strategic initiatives, recommend policy, and administer procedures related to:
 - (i) fund-raising and outreach to internal and external constituencies.
 - (ii) the alumni relations program, the Associates, and the Institute's other key constituencies.
 - (iii) communications, marketing, and media relations.

The Vice President for Development and Institute Relations may be assigned other responsibilities and duties from time to time by the President.

- (7) The Vice President for Strategy Implementation shall
- (a) Be responsible to the President;
 - (b) Articulate and advance the Institute's strategic initiatives and institutional priorities;
 - (c) Execute and integrate the Institute's strategic initiatives in collaboration, as appropriate, with the division chairs, faculty and senior leadership on campus and at the Jet Propulsion Laboratory.
- (8) The Vice President for Student Affairs shall
- (a) Be responsible to the President;
 - (b) Recommend policy and administer procedures concerning student welfare and activities affecting students which supplement the academic program.

The Vice President for Student Affairs may be assigned other responsibilities and duties from time to time by the President.

- (9) The Vice President and Director of the Jet Propulsion Laboratory shall
- (a) Be responsible to the President;
 - (b) Serve as Director of the Jet Propulsion Laboratory;
 - (c) Be responsible for the overall management of the Jet Propulsion Laboratory and for proposing and carrying out its programs, projects, tasks and technical and administrative activities;
 - (d) Establish the objectives of the Jet Propulsion Laboratory and the plans for achieving such results in consultation with other appropriate Officers of the Institute and, as appropriate, with the National Aeronautics and Space Administration;
 - (e) In line with such objectives and consistent with the overall policies of the Institute, establish and promulgate the policies and operating practices of the Jet Propulsion Laboratory.

The Vice President and Director of the Jet Propulsion Laboratory may be assigned other responsibilities and duties from time to time by the President.

- (10) The General Counsel shall
- (a) Be responsible to the President;
 - (b) Be the chief legal officer of the Institute and as such shall have the standing, powers, rights, privileges and responsibilities of a Vice President;
 - (c) Provide advice on the Institute's policies and procedures, including those involving patents, licensing, technology utilization, and other intellectual property matters.

The General Counsel may be assigned other responsibilities and duties from time to time by the President.

- (11) Controller shall
- (a) Be responsible to the Associate Vice President for Finance;
 - (b) Be responsible for financial services, financial planning, accounting operations, administrative data processing, and such other duties as are directed by the Associate Vice President for Finance;

The Controller may be assigned other responsibilities and duties from time to time by the Associate Vice President for Finance.

(12) The Treasurer shall

- (a) Be responsible to the Vice President of Administration and Chief Financial Officer;
- (b) Be responsible for the Institute's relationships with its banks;
- (c) Be responsible for the Institute's cash management;
- (d) Be responsible for managing the Institute's debt, including planning of new debt issues, monitoring existing debt issues, working with the Institute's investment banks, and recommending new debt structures to the Business and Finance Committee;
- (e) Have the power to act for the Vice President of Administration and Chief Financial Officer when the Vice President of Administration and Chief Financial Officer is absent or incapacitated.

The Treasurer may be assigned other responsibilities and duties from time to time by the Vice President of Administration and Chief Financial Officer.

(13) The Secretary shall

- (a) Be responsible to the Chair of the Board and the President;
- (b) Prepare agendas for and keep records of the meetings of the Board of Trustees and of all the Board's committees;

The Secretary may be assigned other responsibilities and duties from time to time by the Board, its committees, the Chair of the Board or the President.

(14) The Chief Investment Officer shall

- (a) Be responsible to the President and the Investment Committee;
- (b) Be the chief investment officer of the Institute and as such shall have the standing, powers, rights, privileges and responsibilities of a Vice President;
- (c) Be responsible for executing the Institute's short-term and long-term plans to achieve optimal investment results;
- (d) Be responsible for administrative support and coordination of Investment Committee actions, life income agreement assets, and beneficial interests in trusts and estates;
- (e) Carry out transactions relating to securities and other investment properties under the oversight of the Investment Committee.

The Chief Investment Officer may be assigned other responsibilities and duties from time to time by the President or the Investment Committee.

Section 3. Meetings of the Board

a. Quorum and Participation by Telephone

One-fifth of the authorized number of members of the Board (as provided for in Section 1 above) shall constitute a quorum. A Trustee may participate in a Board meeting by conference telephone or similar communications equipment, and may vote and shall be counted in determining whether a quorum is present, as long as all Trustees participating in the meeting can clearly hear and communicate with each other.

b. Annual Meeting

The Annual Meeting of the Board shall be held at 9:00 a.m. on the last Saturday in October in each year; however, the Board or the Executive Committee may designate another date or time for the Annual Meeting in any year. In addition to the Board's regular business, the Annual Meeting shall be held for the purpose of electing Trustees, Officers and committees of the Board. If for any reason the Annual Meeting is not held on the date scheduled, the term of office for the incumbent Trustees, Officers and committee members shall continue until adjournment of the succeeding Board meeting at which such elections take place.

c. Regular Meetings

Regular meetings of the Board of Trustees shall be held as determined by action of the Board.

d. Special Meetings

Special meetings of the Board may be called at any time by order of the Chair of the Board or President and shall be called upon request of any five members of the Board.

e. Place of Meetings

All meetings of the Board shall be held at the principal office of the Institute in Pasadena, California, or at a place approved by the Board at a prior Board meeting. Meetings may be held at a place other than that designated by the Board:

- (1) if the written consents of all persons entitled to vote at that meeting are obtained and filed with the Secretary either before or after the meeting or
- (2) under the circumstances contemplated in Paragraph 3.f.(4) below.

f. Meeting Notice

The Secretary or Assistant Secretary shall notify the members of the Board of the time and place of Board meetings as follows:

- (1) Regular Meetings. At least seven days prior to a regular meeting of the Board, the Secretary or Assistant Secretary shall give notice in the form described below to each member of the Board at the last address provided by that member to the Secretary.
- (2) Special Meetings. At least four days prior to a special meeting of the Board, the Secretary or Assistant Secretary shall give notice in the form described below to each member of the Board at the last address provided by that member to the Secretary. Notice of a special meeting of the Board shall include a statement of the purpose of the meeting.
- (3) Form of Notice. Notice may be given in the form of first-class mail, express mail, courier service, personal or telephonic discussion, telegraph, facsimile or electronic mail.
- (4) Change of Place of Meeting. The place of a Board meeting otherwise duly noticed may, for good reason, be changed to a location no more than ten miles from the originally scheduled location upon further notice to the members of the Board delivered to the last address provided by that member to the Secretary, no later than 24 hours prior to the scheduled time of the meeting.
- (5) Cancellation of Meeting. If in the judgment of the Chair of the Board an unforeseen development makes it appropriate to cancel a previously scheduled regular or special meeting of the Board, the Secretary or Assistant Secretary shall give notice thereof to each member of the Board at the last address provided by that member to the Secretary, or if cancellation occurs within 48 hours of the time the meeting was to have occurred, at the location where the member is temporarily staying if such location is known to the Secretary. Such notice may be given in the form of courier service, personal or telephonic discussion, telegraph, facsimile or electronic mail.

g. Adjournment

Whether or not a quorum is present, a majority of members of the Board present may adjourn any meeting to another time and place. If the meeting is adjourned for more than 48 hours, members of the Board who were not present at the time of adjournment must receive at least 48 hours notice of the adjourned meeting.

h. Board Action by Unanimous Written Consent

Any action required or permitted to be taken by the Board may be taken without a meeting, if all members of the Board individually or collectively consent in writing to such action. Such written consents may be delivered personally, by mail, by courier service, by facsimile, by electronic mail or by any other method acceptable to the Board. Consents shall be filed with the minutes of the proceedings of the Board. Such action by written consent shall have the same force and effect as the unanimous vote of the Trustees.

Section 4. Committees

a. Standing and Special Committees

There shall be two kinds of Board committees, namely, Standing Committees and Special Committees. Standing Committees shall be named and described in the Bylaws, and shall normally not have a limited term. Upon the recommendation of any Standing Committee, the Board may establish subcommittees of any such committee. Any Trustee or Senior Trustee may be a member of a duly established subcommittee whether or not that Trustee or Senior Trustee is a member of the parent Standing Committee. Special Committees may be established only by Board action, and shall normally have a specific mission and a limited term.

(1) Standing Committees include the Executive Committee, the Audit and Compliance Committee, the Buildings and Grounds Committee, the Business and Finance Committee, the Development Committee, the Executive Compensation Committee, the Institute and Alumni Relations Committee, the Investment Committee, the Jet Propulsion Laboratory Committee, the Nominating Committee, the Student Experience Committee, and the Technology Transfer Committee.

(2) Composition:

As used in this Paragraph 4.a.(2), the terms "member" or "members" shall not include Consulting Participants, Advisory Participants or Standing Attendees.

- (a) All members of Standing and Special Committees shall be members of the Board and shall be elected by the Board.
- (b) The Board shall designate one of the committee members to serve as Chair of the committee and may designate one or more of the committee members to serve as Vice Chair, except as otherwise provided for the Executive Committee.
- (c) The Board may also designate alternate members of any committee, who may replace any absent member at any meeting of the committee.
- (d) The Chair of the Board shall serve as an *ex officio* member of each Standing Committee. With the exception of the Audit and Compliance Committee and the Executive Compensation Committee, the President shall serve as an *ex officio* member of each Standing Committee.
- (e) The Board may elect any Life Member with an interest in the work of a Standing or Special Committee as a Consulting Participant or Advisory Participant of that committee. Consulting Participants and Advisory Participants shall have the same privileges as members of the committee to attend and speak at its meetings but shall have no other rights, including voting rights.
- (f) The Board may designate non-Trustees as Standing Attendees of any Standing or Special Committee. Standing Attendees shall be Corporate Officers of the Institute, members of the Institute's staff with management responsibility in the areas overseen by the committee or officers of affiliated organizations with an interest in the committee's work. Standing Attendees shall have the same privileges as members of the committee to attend and speak at its meetings but shall have no other rights, including voting rights.
- (g) Advisory Participants of the Audit and Compliance Committee, the Investment Committee, and the Student Experience Committee may be appointed or elected in accordance with Section 6, Section 12, and Section 15, respectively, and shall have the rights therein specified.

b. Term of Office

With the exception of the *ex officio* members of the Executive Committee authorized in Section 5.a of these Bylaws, the term of office of all members of Standing and Special Committees shall expire on, but shall include, the date of the next Annual Meeting of the Board following their election. A vacancy in a committee may be filled at any meeting of the Board.

c. Quorum

For each committee and any subcommittee thereof, three members shall constitute a quorum. In the event that any subcommittee of a standing committee is unable to address a matter under its jurisdiction in timely fashion because of a lack of quorum, the parent standing committee may act on such matter for the subcommittee.

d. Rules of Procedure

Each committee of the Board shall adopt its own rules of procedure. Such rules may include provisions as to place, call and notice of meeting, and action by unanimous written consent without a meeting. If a quorum is present at the meeting, and if each absent member signs a waiver of notice or approval of the action taken at the meeting (either before or after the meeting), transactions which are within the scope of the authority of any committee and which are taken at any meeting however called or noticed or wherever held, shall be as valid as though taken at a meeting held after regular call and notice.

e. Urgent Meetings

When in the judgment of the Chair or Vice Chair of any Committee of the Board, or of the Chair of the Board or the President, circumstances exist that require urgent action by that committee, such individual may call a special meeting of that committee on no less than 12 hours notice. Notice of such special meeting shall be given by personal or telephonic discussion, facsimile or electronic mail.

Section 5. Executive Committee

a. Committee Composition

Each Vice Chair of the Board and the Chair of each Standing Committee shall serve as an *ex officio* member of the Executive Committee for a term that begins with the commencement of that person's service as Vice Chair of the Board or as committee Chair and ends one year following the termination of such service. At the discretion of the Chair of the Board, the Board may elect at each Annual Meeting any other Trustee or Senior Trustee as an at-large member of the Executive Committee. The Executive Committee shall at all times consist of no fewer than five members, including the Chair of the Board and the President.

b. Committee Chair

The Chair of the Board or a Vice Chair of the Board designated by the Board shall serve as Chair of the Executive Committee.

c. Committee Powers and Duties

Except as provided in these Bylaws or by order or resolution of the Board, in the interim between meetings of the Board, the Executive Committee shall have and may exercise all of the powers of the Board in the general governance of the affairs of the Institute except:

- (1) The power to remove a member of the Board;
- (2) The power to approve or authorize an amendment of the Articles of Incorporation or to adopt, amend or repeal the Bylaws;
- (3) The power to fill vacancies on the Board or in any committee which has the authority of the Board;
- (4) The power to appoint committees of the Board or members thereof; and
- (5) The power to approve any other action for which any statutory provision or rule of law precludes approval by a committee of the Board.

No action taken at any meeting of the Executive Committee shall require the approval of the Board, but all such action shall be reported to the Board at its meeting next following the taking of any such action.

Section 6. Audit and Compliance Committee

a. Committee Composition

The Board shall elect at each Annual Meeting an Audit and Compliance Committee consisting of no fewer than five members, one of whom shall be the Chair of the Board. To assure an appropriate level of independence for the Audit and Compliance Committee, no employee of the Institute (including any Officer who is an employee of the Institute) and no person receiving any monetary compensation from the Institute may serve as a member of the Audit and Compliance Committee.

b. Committee Powers and Duties

The Committee shall have the powers and duties with respect to financial statements of the Institute, internal and external audit, risk management, compliance, reporting and other matters as are specified in a charter approved by the Board.

c. Advisory Participants

Upon the recommendation of the Audit and Compliance Committee, the Board may also designate individuals as Advisory Participants of the Audit and Compliance Committee. Advisory Participants shall be individuals of special competency relevant to the work of the Audit and Compliance Committee. Advisory Participants shall have the same rights as members of the Audit and Compliance Committee to attend and speak at its meetings but shall have no other rights, including voting rights.

d. Conflict Review Subcommittee

The Board shall elect at each Annual Meeting a Conflict Review Subcommittee (the "AC Subcommittee") of the Audit and Compliance Committee (the "AC Committee") consisting of no fewer than four members, one of whom shall be the Chair of the AC Committee and one of whom shall be the Chair or Vice Chair of the Technology Transfer Committee. The Chair of the AC Committee shall serve as Chair of the AC Subcommittee. The AC Subcommittee shall review and take appropriate actions with respect to all transactions involving a Trustee or Officer (other than in his or her capacity as such) brought to its attention that are subject to the Institute's Conflict of Interest Policy for Trustees and Officers (the "Policy"); provided, however, that the AC Subcommittee may in its discretion in any particular case defer to the full AC Committee, in which event the AC Committee, rather than the AC Subcommittee, shall review and take appropriate action with respect to the transaction. No member of the AC Subcommittee or the AC Committee, as the case may be, who is involved in such transaction shall be present during the voting or, except to the extent specifically requested by the AC Subcommittee or the AC Committee, the deliberations thereon.

Section 7. Buildings and Grounds Committee

a. Committee Composition

The Board shall elect at each Annual Meeting a Buildings and Grounds Committee consisting of no fewer than seven members, two of whom shall be the Chair of the Board and the President.

b. Committee Powers and Duties

- (1) The Buildings and Grounds Committee shall review, advise, and recommend actions and policies related to the Institute's Master Plan and all on-campus and off-campus real estate investments and holdings.
- (2) The Committee shall review, advise and recommend actions concerning plans, programs, and construction operations of the Institute's campus, stations, and observatories, including all buildings, landscape development, and new construction. In this capacity, the Committee shall review plans and provide advice on:
 - (a) New facilities planning and construction projects and major modifications to existing structures, at selected stages, from concept design and cost estimates through occupancy.
 - (b) Process and progress of the Administration's selection of architects, general contractors and construction managers.

- (c) Site locations.
 - (d) Concept and schematic plans including architectural renderings. Renderings will be provided for all new buildings and major exterior modifications to existing structures.
 - (e) Major modifications of contract work within funds approved, as well as changes in scope to contract work requiring expenditure of additional funds.
 - (f) The capital budget with specific attention to sources of funds.
 - (g) Opportunistic acquisition of real estate within the boundaries established from time to time by the Board of Trustees.
- (3) The committee shall recommend to the Board policies governing matters within its jurisdiction.

Section 8. Business and Finance Committee

a. Committee Composition

The Board shall elect at each Annual Meeting a Business and Finance Committee consisting of no fewer than seven members, two of whom shall be the Chair of the Board and the President.

b. Committee Powers and Duties

- (1) Under the direction of the Board, the Business and Finance Committee shall be responsible for the business and financial policies of the Institute, including review of long-range planning, the capital expenditures budget, the annual operating budget, building project cost estimates, and review for assurance that such are being followed.
- (2) The committee shall review and make recommendations regarding the Institute's compensation policies, employee benefits program and issues related to employee relations.

c. Annual Operating Budget

During the preparation of the annual operating budget, the Committee shall consult with the President and the Vice President of Administration and Chief Financial Officer and shall review the completed budget prior to its submission to the Board of Trustees for adoption. The Committee shall review proposed revisions to these budgets.

Section 9. Development Committee

a. Committee Composition

The Board shall elect at each Annual Meeting a Development Committee consisting of no fewer than five members, two of whom shall be the Chair of the Board and the President.

b. Committee Powers and Duties

The Development Committee shall oversee the Institute's fund-raising programs and the development of strategies and plans related to major gift prospects. In exercising its duties the Committee shall support, advise on, and review the Institute's development efforts in collaboration with the President and the Vice President for Development and Institute Relations. The Committee shall strive actively to involve members of the Board and the Institute community in the Institute's development efforts and seek to broaden significantly the Institute's donor base. The Committee may have such additional powers and duties with respect to the fund-raising policies and programs of the Institute as may be specified in a charter approved from time to time by the Board of Trustees.

Section 10. Executive Compensation Committee

a. Committee Composition

The Board shall elect at each Annual Meeting an Executive Compensation Committee consisting of no fewer than five members, one of whom shall be the Chair of the Board. To ensure an appropriate level of independence for the Executive Compensation Committee, no employee of the Institute (including any Officer who is an employee of the Institute) and no person receiving any monetary compensation from the Institute may serve as a member of the Executive Compensation Committee.

b. Committee Powers and Duties

The Executive Compensation Committee shall have the powers and duties with respect to executive compensation and other matters that are specified in a charter approved by the Board. In the case of the President, the Committee's recommendations regarding compensation shall be subject to the further approval of the Board of Trustees.

Section 11. Institute and Alumni Relations Committee

a. Committee Composition

The Board shall elect at each Annual Meeting an Institute and Alumni Relations Committee consisting of no fewer than seven members, two of whom shall be the Chair of the Board and the President.

b. Committee Powers and Duties

(1) The committee shall review, advise and recommend actions, policies and plans for:

- (a) increasing public awareness of the Institute,
- (b) outreach to internal and external constituencies (including the Alumni and the Associates), and
- (c) promoting the Institute and its unique education and research mission.

The committee may make recommendations to the Development Committee with respect to fund-raising activities.

(2) The committee shall review, advise and recommend actions, policies and plans for the Institute's alumni relations programs and oversee implementation of such programs. The committee shall also make recommendations for improving the effectiveness of the Institute's alumni relations programs and for establishment of new programs.

Section 12. Investment Committee

a. Committee Composition

The Board shall elect at each Annual Meeting an Investment Committee consisting of no fewer than six members, two of whom shall be the Chair of the Board and the President. The Investment Committee shall normally have no fewer than two Advisory Participants, who shall be elected as prescribed in Section 12.e of these Bylaws. The sum of the number of members and Advisory Participants of the Investment Committee serving at any given time shall not exceed twelve.

b. Committee Powers and Duties

(1) Except as provided by the Board, the Investment Committee shall have responsibility and authority for the investment of endowment, life income, annuity and other funds belonging to or being under the control of the Institute. Any such investment may be made in real or personal property of any character, including securities. The Committee may cause the sale or exchange, or in any other manner exercise in the name of the Institute and for its account, all rights incident to such real or personal property.

(2) Full power and authority to execute in the name of the Institute any documents required to carry out any matter authorized by the provisions of this Section 12 or by any of the persons designated in a resolution of the Board is vested in and may be done by two Corporate Officers of the Institute: one of whom shall be the Chair of the Board, the President, the Provost, the Vice President of Administration and Chief Financial Officer, the Chief Investment Officer, the Controller, an Assistant Controller, the Treasurer, or an Assistant Treasurer; and the other of whom shall be the Secretary or an Assistant Secretary. However, the Board may by resolution:

- (a) designate any one or more of its members who are eligible to vote, any one or more of the Corporate Officers of the Institute, or, with respect to documents other than agreements with investment advisors, specified members of the senior professional staff of the Investment Office and the Controller's Office to sign any such documents in lieu of the above-named Officers, or,
- (b) authorize (or empower the Committee to authorize) any member of the Committee who is eligible to vote or any Officer or Officers to perform any act which the Committee is authorized to perform.

c. Investment Counselors

In carrying out any of its powers and duties respecting the purchase or sale of any property, the Committee may cause the Institute to engage the services of one or more investment counselors or managers. The services to be rendered by each such counselor or manager shall be specified in a written contract between the Institute and the counselor or manager and shall be authorized by the Committee. Such contract may include provisions which will authorize the counselor or manager to order the purchase or sale of such property on behalf and for the account of the Institute within any limitations specified in the contract.

d. Delegation to Chief Investment Officer

The Committee may by resolution delegate to the Chief Investment Officer authority to exercise powers and duties of the Committee relative to investments of the Institute subject to limitations specified by the Committee, except the establishment of investment policy or strategy, provided that prior to exercising such authority the Chief Investment Officer must give the Committee sufficient advance notice to permit the Committee to act should it so choose. The Committee shall report to the Board or Executive Committee not later than at its next meeting any significant delegation (or changes in delegation) of its authority to the Chief Investment Officer.

e. Advisory Participants

Advisory Participants shall be individuals of special competency relevant to the work of the Investment Committee. Such Advisory Participants shall be elected by the Board or the Executive Committee upon the recommendation of the Chair of the Committee. Advisory Participants shall not have voting rights but shall have such other rights as may be specified by the Investment Committee. Such Advisory Participants shall be elected for three-year terms. Advisory Participants shall typically serve a maximum of two consecutive terms; however, under unusual circumstances the Board or the Executive Committee may elect an individual to additional terms should such action be recommended by the Chair of the Committee. Advisory Participants shall not be compensated but shall be reimbursed for reasonable out-of-pocket expenses related to their service. Advisory Participants shall be required to comply with such conflict of interest policy and procedures as may be prescribed by the Audit and Compliance Committee in consultation with the Chair of the Investment Committee.

f. Provision for Immediate Action

When in the judgment of the Committee Chair, the Committee Vice Chair, the Board Chair or the President circumstances exist that require immediate action with respect to the endowment or other funds described in Section 12.b.(1) of these Bylaws and such individual deems it impractical to hold a telephonic meeting of the Committee due to the urgency of the situation, the Chief Investment Officer, or in his or her absence the President, or in the absence of both of these officers a senior managing director in the Investment Office is authorized to take any action otherwise within the authority vested in the Investment Committee by Section 12.b. above, provided that prior to taking any action such person obtains the concurrence of at least three members of the Investment Committee, at least one of whom shall be the Committee Chair, the Committee Vice Chair or the President. Any action taken pursuant to this Section 12.f. shall be promptly reported to the Investment Committee and the Executive Committee by the person taking such action.

g. Committee Authority

Except as required by the provisions of Paragraph 12.b. above, or as may be required by Board resolution, all action taken by the Committee, its duly established subcommittees, the Corporate Officers of the Institute, or any other person, with respect to matters authorized by this section of the Bylaws or by resolution of the Board shall be final and shall not require the approval of the Board or Executive Committee, but shall be reported to the Board or Executive Committee not later than at its next meeting. In addition, at least once a year the Committee Chair, or the Committee Chair's designee, shall discuss the Committee's overall approach as well as strategic issues and challenges related to its activities with the Board.

Section 13. Jet Propulsion Laboratory Committee

a. Committee Composition

The Board shall elect at each Annual Meeting a Jet Propulsion Laboratory (JPL) Committee consisting of no fewer than seven members, two of whom shall be the Chair of the Board and the President.

b. Committee Powers and Duties

The Committee shall provide trustee oversight of the governance, management, and operations of JPL and shall have such powers and duties related to JPL as are specified in a charter approved by the Board.

c. JPL Governance Subcommittee

The Board shall elect at each Annual Meeting a JPL Governance Subcommittee of the JPL Committee consisting of no fewer than five nor more than seven members, five of whom shall be the Chair of the JPL Committee, the Vice Chair of the JPL Committee, the Chair or the Vice Chair of the Audit and Compliance Committee, the Chair of the Board, and the President. The Chair of the JPL Committee shall serve as Chair of the Subcommittee. The Subcommittee shall review, evaluate and balance the institutional obligations and risks the Institute assumes as a consequence of its management of the Jet Propulsion Laboratory and shall ensure that the Board of Trustees is aware of these risks and obligations.

Section 14. Nominating Committee

a. Committee Composition

The Board shall elect at each Annual Meeting a Nominating Committee consisting of no fewer than seven members, two of whom shall be the Chair of the Board and the President.

b. Committee Powers and Duties

The Committee shall develop and recommend policies on the composition of the Board. At or prior to any election by the Board of a person to any office of Trustee, Senior Trustee, Life Member, Chair or Vice Chair of the Board, or to membership on any Standing or Special Committee, the Committee shall submit to the Board a report identifying and recommending candidates for election to each such office. The Nominating Committee's report at each Annual Meeting shall include the names of committee members proposed to be designated as Chair or Vice Chair of the Standing Committees, such designations to comply with such guidelines as may be adopted from time to time by resolution of the Board of Trustees. This Section 14 does not preclude the right of any member of the Board to nominate one or more candidates for any such office at the meeting of the Board at which such election is held.

Section 15. Student Experience Committee

a. Committee Composition

The Board shall elect at each Annual Meeting a Student Experience Committee consisting of no fewer than seven members, two of whom shall be the Chair of the Board and the President.

b. Committee Powers and Duties

The Student Experience Committee shall provide trustee oversight of the student experience at the Institute and shall assist the Board in discharging its responsibility for the quality of the educational programs offered by the Institute. In carrying out its responsibilities, the Committee shall:

- (1) Review evaluations of academic programs to assess whether the students' educational and research experience is consistent with the Institute's mission and standards of excellence.
- (2) Appraise programs and policies that impact the students' experience at the Institute.

- (3) Monitor and evaluate strategies for promoting diversity of the student body and student recruitment, enrollment and retention.
- (4) Monitor preparation for regional accreditation reviews and assess reports, recommendations and other communications from accrediting agencies.
- (5) Provide advice and counsel on student-related issues and interact with students in social and academic settings.

c. Advisory Participants

Upon the recommendation of the Vice President for Student Affairs, the Board may annually elect no fewer than one and no more than two undergraduate students and no fewer than one and no more than two graduate students to serve as Advisory Participants of the Committee. Advisory Participants shall have the same rights as members of the Committee to attend and speak at its meetings but shall have no other rights, including voting rights. Such Advisory Participants shall be elected for one-year terms and may serve no more than two consecutive full terms. The term of office for the Advisory Participants shall expire on, but shall include, the date of the next Annual Meeting following their election. A vacancy in any Advisory Participant position may be filled at any time for the remainder of said term by the Board or the Executive Committee.

Section 16. Technology Transfer Committee

a. Committee Composition

The Board shall elect at each Annual Meeting a Technology Transfer Committee consisting of no fewer than seven members, two of whom shall be the Chair of the Board and the President.

b. Committee Powers and Duties

The Committee shall review the policies and practices of the Institute, including those of the Jet Propulsion Laboratory, with respect to the transfer to the private sector of technologies developed by the Institute and recommend policies and actions for promoting the timely commercialization of such technology.

Section 17. Signature Authorizations

a. Checks

Unless otherwise provided by the Board, all checks for the disbursement of funds of the Institute shall be signed with the facsimile signature of any one of the following Officers: the Chair of the Board, the President, the Provost, the Vice President of Administration and Chief Financial Officer, the Controller, the Treasurer, the Chief Investment Officer, the Secretary; or an Assistant Controller, an Assistant Treasurer, or an Assistant Secretary, acting, respectively, in lieu of the Controller, the Treasurer, or the Secretary; provided that the Board may designate any other members of the Board or Officers to act in lieu of any of the above Officers.

b. Contracts, Proposals, Instruments of Assignment, and Transfers

The execution of all contracts, proposals, instruments of assignment, transfers (except as otherwise provided in Section 12), and similar instruments authorized by the Board or a Standing Committee may be signed on behalf of the Institute by any two of the Officers who are authorized to sign checks under the provisions of Paragraph 17.a. The Board may authorize any member or members of the Board, Officer or other person to sign any such documents in lieu of any such Officers. The Board may also authorize one or more Officers or employees of the Institute to sign proposals for research or service contracts, applications for grants and gifts, subcontracts and purchase orders, and other instruments, specifying in the resolution whether prior authorization of the document shall be required by the Board or any committee, the number of signatures required on any such document, the limitations upon the exercise of such signing authority, and the extent, if any, to which signing authority may be delegated by the person or persons so authorized to sign.

c. Diplomas

All diplomas evidencing academic degrees granted by the Institute shall be signed manually or by the use of facsimile signatures by the Chair of the Board and the President or by such other person or persons as may be designated by the Board.

Section 18. Authorization to Incur Debt

a. Delegation of Authority to Incur Debt

By resolution, the Board may delegate to the Executive Committee, any other Standing Committee of the Board, or any Corporate Officer or Officers of the Institute the power to:

- (1) Borrow money on behalf of the Institute for a specified project approved by the Board,
- (2) Approve the terms and conditions of such borrowings, financial or otherwise, including the grant of mortgages and liens on and security interests in the real and personal property of the Institute, and
- (3) Take any and all action and to execute, attest, acknowledge, deliver, file and/or record any and all documents which may be necessary or desirable to borrow money on behalf of the Institute for such project within any parameters established by the Board.

b. Authority of Designee

Except as may be required by the Board resolution referred to in Paragraph 18.a., all action taken by the Executive Committee, any Standing Committee of the Board, or the Corporate Officers of the Institute with respect to matters authorized by this Section or Board resolution shall be final and shall not require the approval of the Board or any other committee, but shall be reported to the Board not later than its next meeting.

Section 19. Indemnification

The Institute shall, and hereby does, to the extent permitted by law, indemnify each of its Trustees, Officers and all persons who are expressly designated or permitted in the Bylaws or in a resolution of the Board or of a Standing or Special Committee to participate in the affairs or act on behalf of the Institute in any manner whatsoever, including, without limitation, Advisory Participants, Life Members, Chairs Emeriti and Presidents Emeriti, including persons who have served as such in the past or who are heirs, executors, or administrators thereof, against expenses (including attorney's fees), judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any actual or threatened proceeding of any kind, arising by reason of the fact that any such person is or was a Trustee, Officer or designee of the Institute, and shall advance to such Trustee, Officer or designee any expenses reasonably incurred in defending any such proceeding as permitted by law. Such indemnity shall apply, however, only if, in connection with the matter at issue, the Trustee, Officer or designee claiming indemnity hereunder acted in good faith and in a manner he or she reasonably believed was in the best interests of the Institute. This indemnity does not extend to any act of the person seeking indemnity which involves gross negligence or willful misconduct, or is materially in breach of the Institute's Articles of Incorporation or these Bylaws. The Institute may obtain and may rely on a written opinion of independent legal counsel on any issues of good faith, reasonable belief or breach, or on any and all other issues that may bear on the application of this indemnity.

Section 20. External Audit

The Audit and Compliance Committee shall annually, or more frequently if deemed desirable, engage an external auditor to audit the books of the Institute and report to the Board. The auditor shall have power to call upon any Officer, agent, faculty member or other employee of the Institute for information, or for any book, paper, or other document pertaining to its business affairs.

Section 21. Seal

A corporate seal, an impress of which follows this section, is hereby adopted as the seal of the Institute.

Section 22. Bylaws Changes

These Bylaws may be amended or repealed, or new Bylaws may be adopted, by the Board at any meeting of the Board, except that no amendment of the Bylaws may be adopted extending the term of a member of the Board beyond that for which such member of the Board was elected.