

I. AURA ORGANIZATION

AURA, as a consortium of research universities, is devoted to research, engineering and other activities benefiting astronomy, the astronomical community and the nation.

A. MISSION

To promote excellence in astronomical research by providing access to state-of-the-art facilities.

Primary corporate tasks in support of this mission are:

1. To establish policies governing the operation of the Corporation which are consistent with contractual requirements and in the best interest of science;
2. To exercise management oversight of its Centers so as to facilitate the conduct of their missions and supporting tasks;
3. To interact with funding agencies to insure mutual understanding of our respective needs so the Corporation and its Centers may operate most effectively for the use and benefit of the scientific community;
4. To establish an AURA-wide operational environment in which both AURA staff and external users of these Centers can function effectively; and,
5. To provide for internal and external evaluation of the performance of the Centers and the Corporation.

B. ROLE AND RESPONSIBILITIES OF THE MEMBER REPRESENTATIVES

1. Membership:

The body of the Member Representatives shall be composed of one representative designated by each member institution and one member representative designated by each international affiliate member.

2. Meetings of the Member Representatives

At each Annual Meeting the Member Representatives shall;

- a. Elect members of the Board of Directors;
- b. Elect the Chair of the Board of Directors/Member Representatives;
- c. Elect a Nominating Committee to serve for the ensuing year;
- d. Fix the date for the next Annual Meeting;
- e. Provide a slate of candidates to the Board of Directors for the members of Center Management Councils;

- f. Officially receive the report of the independent auditors for the past audit; and,
- g. Appoint the independent auditors for the next audit period.
- h. Elect a member representative or member of the AURA Board of Directors to serve as Chair of the AURA Committee on Workforce and Diversity.

C. ROLE AND RESPONSIBILITIES OF THE BOARD OF DIRECTORS

1. Membership

The members of the Board of Directors are ultimately responsible for the operation of AURA and the astronomical research Centers that it manages. The Board of Directors has and may exercise all of the powers of AURA and shall have charge, management, and control of the business and affairs of AURA. They approve (or delegate authority for approval of) AURA program plans, budget, and long-range plans, including those of the astronomical research Centers. They act as trustees for the mission of AURA, the efficient operation of the astronomical research Centers and the advancement of the astronomical sciences. As trustees, they bring to bear the perspectives of the astronomical community in general and of the university community in particular the Board's oversight of the Centers. As individuals, the Board members work with the President and Corporate staff in dealing with the funding agencies and the AURA-managed Centers. As representatives of AURA at their home institutions, Board members gain understanding and support for the national centers among their colleagues and administrators.

2. Avoidance of Potential Conflicts of Interest

- a. The AURA Board declares that each Board Member is to act as a trustee for the mission of AURA, the effective operation of the national Centers under AURA's purview, and the advancement of the astronomical sciences. As such a trustee, each Board Member is to bring to the deliberations of the Board and its Committees the perspective of the astronomical community in general, and the university community in particular, rather than the perspective of any single member institution;
- b. The AURA Board recognizes the possibility that a specific matter coming before the Board or its Committees may be perceived as posing a conflict between the loyalties of a Board Member as a trustee for the advancement of the astronomical sciences through AURA and the loyalties of that Board Member to a specific institution of AURA or to the Member's own personal interests. To assure that confidence in AURA's decision-making is maintained it

is essential to avoid not only actual conflicts of this kind but also situations that may only appear to be conflicts;

- c. Such potential conflicts may arise when the AURA Board or any of its Committees consider issues in which the immediate interests of a Member of the Board differ significantly from the immediate interests of a Center for which AURA is responsible. The appearance of a conflict of interest may develop for an AURA Member from the action or inaction by the Board of Directors or its Committees. To a Board Member, this conflict might appear to significantly affect that Member's personal interest, those of the Member's immediate family or business party, or those of an institution with which the Member is associated. The interests involved may be financial or programmatic/scientific in nature. However, to fall within this policy, the difference in the interests and the way they affect each other must be significant, not merely technical. The test for significance is how the issue would be seen by a reasonable, disinterested person in possession of the relevant facts. Thus, use of one of AURA's facilities by a Board Member for astronomical research would not by itself constitute a potential conflict of interest that is significant. To be significant in the context of AURA decision-making, a potential conflict would most likely arise in, for example, a competition for major project financing involving AURA and a member institution or a consideration by an AURA institution of entering into a joint program or project with a Board Member or with a Board Member's institution. However, even in such cases, if the fact of the potential conflict is disclosed, the AURA Board or its Committee may still wish to consider the views of the Member;
- d. It is the responsibility of each Board Member to be alert to the possibility of the appearance of a potential conflict of interest with respect to a specific matter being considered by the Board or its Committees. If one is thought to exist, the Board Member concerned is responsible for exercising one of the following options:
 - 1) Disclosing the interest in full to the other Members of the Board or the Committee and abiding by their judgment as to whether or not they wish the Member to participate in the deliberations or votes on that matter; or,
 - 2) Recusing himself or herself from the deliberations or votes of the Board or Committee on that matter.In either case, the Minutes of the Board or Committee shall record the exercise of either option and the response of the Board or Committee to that exercise; and,
- e. The Chair of the Board, and the Chair of each Committee, are responsible for using reasonable diligence to identify whether or

not a specific matter may cause the appearance of a potential conflict and if they become aware of such an appearance, to encourage the Board Member concerned to exercise one of the options, and if the Member does not do so, to disclose the interest to the Board or its Committees and abide by its judgment as to the participation of the Member in that matter.

3. Relationship to the President and Center Directors

The President and the Directors of the Centers operate the business of the corporation and represent it to the public and the astronomical community as appropriate. The authority for operating the Centers is delegated to the Directors who are responsible for their effective management and are accountable to the Board through the President for their performance. This delegation is recognized in the contracts between AURA and the funding agencies and in the AURA Policies & Procedures Manual (P&PM).

4. Specific Roles and Responsibilities of the Board of Directors
(as specified in the Corporate By-laws)

The Directors shall:

- a. Elect one or more Directors, as vacancies occur between Annual Meetings of the Member Representatives;
- b. Elect a Chair and Vice Chair of the Board of Directors;
- c. Appoint a President and such other officers;
- d. Appoint such other committees of its members or otherwise as it may deem desirable in carrying on work of the Corporation;
- e. Appoint the Director for each of the Centers;
- f. Elect the Treasurer and Secretary of the Corporation and other officers as deemed necessary from time to time; and,
- g. Have and may exercise all of the powers of the Corporation and shall have charge, management and control of the business and affairs of the Corporation.

5. Specific authority held by the Board of Directors, as outlined in the AURA Policies & Procedures Manual is:

- a. To set AURA policy as set forth in the Policies & Procedures Manual;
- b. To commit or approve commitment of the Corporation for more than \$3M;

- c. To approve appointments to tenured positions;
- d. To approve salary increases for the President, Center Directors and their Senior Management Staff;
- e. To act as final authority on complaints of staff members appointed by authority of the Board of Directors; and,
- f. To approve or delegate authority for approval of Center program plans, budgets, and long range plans.

D. ROLE AND RESPONSIBILITIES OF THE MANAGEMENT COUNCILS

A significant part of the management structure of AURA includes the Management Councils charged by the Board of Directors with the oversight of Center management and of AURA's fulfillment of its contractual responsibilities. These responsibilities include Center specific technical and management issues, policy, benefit and salary administration etc. Community leaders are selected for membership of the Management Councils and in addition to scientists may include administrators, engineers or other specializations deemed relevant for accomplishing effective oversight. Charters for the Management Councils may be viewed on the AURA Corporate website.

II. ROLE, RESPONSIBILITIES, AND RELATIONSHIPS OF THE PRESIDENT OF AURA

A. ROLE

The President is the chief executive officer of AURA and serves as the primary representative or spokesperson for AURA. The President is an ex officio member of the Board of Directors and Management Councils and implements policy decisions of the Board. The President serves the Board of Directors as its principal executive officer, providing leadership and guidance on policy matters and coordinating the activities of the Board and its various committees. The President provides guidance and direction to the Center Directors on matters of policy and planning, particularly with regard to interactions with the funding agencies. The President is also responsible for maintaining effective working relationships with AURA Member Institutions.

B. SPECIFIC FUNCTIONS

In fulfilling the foregoing role, the President shall:

1. Implement all policies established by the Board and keep the Members of the Board fully informed on all important matters affecting the quality and financial integrity of AURA and the Centers it manages;
2. On behalf of the Board, provide management oversight of the AURA Centers and review the performance of the Center Directors;
3. In collaboration with the Center Directors, represent the needs and scientific opportunities of the AURA Centers to senior levels of Federal agencies;
4. Establish and maintain effective relationships with governmental bodies, especially those with whom the Corporation has contractual relationships;
5. Communicate, as appropriate, AURA's advocacy for a strong national astronomy program;
6. With the knowledge and approval of the Board, seek appropriate additional activities for AURA, which are in the national interest and in the interests of its sponsoring institutions and the academic community;
7. Assure that Center planning is consistent with AURA Board and funding agency guidelines;
8. Facilitate communications between the Center Directors and the Board;
9. Keep the Board of Directors informed on corporate activities;
10. Recommend appointments to the Management Boards of organizations of which AURA is a participating member and, submit such recommendations to the Board of Directors for approval; and,

11. Advise and inform the Board on all tenure denials and staff appeals.

C. ADMINISTRATIVE REPORTING

1. The President reports to and serves at the pleasure of the Board of Directors of AURA. The President receives policy guidance and supervision directly from the Chair and Vice Chair of the Board.
2. The Center Directors report to the Board through the President.

III. ROLE AND RESPONSIBILITIES OF CENTER DIRECTORS

NATIONAL OPTICAL ASTRONOMY OBSERVATORY (NOAO) DIRECTOR

A. ORGANIZATIONAL PURPOSE OF NOAO

The National Optical Astronomy Observatory (NOAO) is managed by AURA under a cooperative agreement with the NSF. Tasks under the Cooperative Agreement include maintenance, support and access to high-quality optical/IR telescopes, auxiliary instruments, data reduction facilities, and software to users chosen on the basis of scientific merit from the astronomical community. NOAO is a leading center in developing state-of-the-art, innovative instrumentation and techniques for astronomical observations at visible and infrared wavelengths. NOAO maintains a first-class scientific staff, which provides leadership for developing such facilities and instruments and to carry out forefront research in support of the observatory's mission.

B. NOAO DIRECTOR'S ROLE

The NOAO Director:

1. Reports through the President to the Board of Directors of AURA, and is responsible for the National Optical Astronomy Observatory, and more specifically for assembling, maintaining, and providing scientific leadership to a first-class scientific staff; for maintaining, operating, and developing high-quality astronomical facilities for use by the astronomical community; for initiating a program of state-of-the-art instrumentation for optical and infrared astronomy; and responsibility for the design and development, as new public optical facilities;
2. Is responsible for selection of Associate Directors and other key personnel through whom this program is planned, conducted, and monitored; for assignment of authority and resources to these staff members consistent with AURA policy; and for overseeing their performance and providing guidance; and,
3. Is responsible for conducting the program of NOAO in a manner consistent with the policy guidelines provided by AURA and NSF and, as appropriate, to recommend extension or modification of such policy.

C. SPECIFIC RESPONSIBILITIES

The NOAO Director will:

1. Establish and maintain a structure within NOAO, which will foster a spirit of scientific inquiry and service to the science of astronomy;

2. Supervise, encourage, and provide for the development of the staff of NOAO;
3. Respond to and support AURA Board committees including the Observatory Council and Visiting Committees;
4. Establish and administer procedures for allocation of resources within NOAO;
5. Subsequent to AURA approval, prepare and submit to the NSF annual program and long-range plans which reflect the needs of the astronomical community;
6. Implement approved program plans consistent with AURA policies;
7. Report on the status of the program to the AURA President, and, via the President, to the AURA Board and the Member Representatives;
8. Submit salary recommendations to the OC and the Board of Directors;
9. Recommend candidates for tenure to the OC;
10. Serve as principal interface for programmatic matters between AURA and the appropriate NSF program office, and exercise substantial delegated responsibility for such interface in contractual matters;
11. Serve as AURA's principal spokesperson to the scientific community on matters relating to NOAO;
12. Maintain contact with the scientific community in order to remain informed on community needs to represent AURA's plans, and to obtain an evaluation of activities proposed and under way in NOAO;
13. Participate in a program of individual research as time permits; and,
14. Maintain a safe and effective work environment.

III. ROLE AND RESPONSIBILITIES OF CENTER DIRECTORS (continued)

NATIONAL SOLAR OBSERVATORY (NSO) DIRECTOR

A. ORGANIZATIONAL PURPOSE OF NSO

The National Solar Observatory (NSO) is managed by AURA under a cooperative agreement with the NSF. The tasks under the cooperative agreement may include maintenance, support and access to high-quality optical/IR solar telescopes, auxiliary instruments, data reduction facilities, and software to users chosen on the basis of scientific merit from the astronomical community. NSO is a leading center in developing state of the art, innovative instrumentation and techniques for solar observations at visible and infrared wavelengths. NSO maintains a first-class scientific staff, which provides leadership for developing such facilities and instruments and carry out forefront research in support of the observatory

B. NSO DIRECTOR'S ROLE

The NSO Director:

1. Reports through the President to the Board of Directors of AURA, and is responsible for the National Solar Observatory, and more specifically for assembling, maintaining, and providing scientific leadership to a first-class scientific staff; for maintaining, operating, and developing high-quality astronomical facilities for use by the astronomical community; for initiating a program of state of the art instrumentation for optical and infrared astronomy; and responsibility for the design and development, as new public optical facilities;
2. Is responsible for selection of Associate Directors and other key personnel through whom this program is planned, conducted, and monitored; for assignment of authority and resources to these staff member consistent with AURA policy; and for overseeing their performance and providing guidance; and,
3. Is responsible for conducting the program of NSO in a manner consistent with the policy guidelines provided by AURA and NSF and, as appropriate, to recommend extension or modification of such policy.

C. SPECIFIC RESPONSIBILITIES

The NSO Director will:

1. Establish and maintain an organizational structure within NSO, which will foster a spirit of scientific inquiry and service to the science of astronomy;

2. Identify individuals for senior positions in NSO, which report directly to the Director, and provide guidance, encouragement, and supervision for them;
3. Supervise, encourage, and provide for the development of the scientific staff of NSO;
4. Respond to and support AURA Board committees including the Solar Observatories Committee (SOC) and visiting committees;
5. Establish and administer procedures for allocation of resources within NSO;
6. Prepare and submit to NSF, subsequent to AURA approval, annual and long-range program plans to reflect the needs of the astronomical community;
7. Submit Salary recommendations to the SOC and the Board of Directors;
8. Recommend candidates for tenure to the SOC;
9. Implement approved program plans consistent with AURA policies.
10. Promote a program of training in NSO;
11. Report on the status of the program to the AURA President and, via the President, to the AURA Board and Member Representatives;
12. Serve as principal interface for programmatic matters between AURA and the appropriate NSF program office, and exercise substantial delegated responsibility for such interface in contractual matters;
13. Serve as AURA's principal spokesperson to the scientific community on matters relating to NSO;
12. Maintain contact with the scientific community in order to remain informed on community needs to represent AURA's plans, and to obtain an evaluation of activities proposed and under way in NSO; and,
13. Participate in a program of individual research as time permits.
14. Maintain a safe and effective work environment.

III. ROLE AND RESPONSIBILITIES OF CENTER DIRECTORS (continued)

GEMINI OBSERVATORY DIRECTOR

A. ORGANIZATIONAL PURPOSE OF THE GEMINI OBSERVATORY

The Gemini Observatory is an international partnership that operates two state-of-the-art 8-meter telescopes, one in Hawaii and one in Chile. The partners in Gemini are designated agencies of the United States of America, Canada, Brazil, Argentina and Chile. The scientific program of the Gemini Observatory is governed by the Gemini Board as provided in the Gemini Agreement. The U.S. National Science Foundation (NSF) is the Executive Agency for the Gemini partnership.

The central mission of the Observatory is to provide access to large telescopes equipped with the highest quality, advanced instrumentation so that scientists in the partner user communities are able to carry out forefront research in optical/infrared astronomy at maximum effectiveness and efficiency. The Observatory will work in partnership with its communities to maintain excellence and cost effectiveness in the facilities, instrumentation, and in the support it provides to the entire Gemini user community.

Major current objectives of the Observatory include:

- To deliver and operate high-quality instruments that represent the priorities of our community;
- To provide a high fraction of queue operations with appropriate data quality control, data products, and completion fraction;
- To have the ability to remotely operate the telescopes; and
- To interface better with the partner community.

The NSF, as Executive Agency, has selected the Association of Universities for Research in Astronomy, Inc. (AURA) to act as the Managing Organization for the observatory working under a Cooperative Agreement with NSF. The selection of the Managing Organization and the terms of the Cooperative Agreement are subject to the approval of the Gemini Board. In recognition of its intrinsically international character, AURA has established a Gemini management team, independent of other AURA activities, to design, construct, and operate two 8-meter telescopes that meet the science requirements approved by the Gemini Board. More specifically the team's tasks include, but are not limited to, the integration of scientific, technical, and administrative activities; design; construction, operations, and procurement of instruments; adherence to science requirements within the constraints of technology, budget, and schedule; placement of major procurements, and other activities as needed, in accordance with the Cooperative Agreement with the NSF.

B. GEMINI DIRECTOR'S ROLE

The Gemini Director;

1. Ensures the efficient and effective operation of the Gemini telescopes and prepares for the future through strategic analysis and planning. The Director is responsible for the overall scientific productivity and cost effectiveness of Gemini in all aspects of the operation of the telescopes and for keeping Gemini at the forefront in science, technology, and instrumentation. In carrying out this role, the Gemini Director exercises strong scientific leadership and promotes the fulfillment of the Gemini mission.
2. Is appointed through a free and open competition and is responsible to the Gemini Board, through the Executive Agency and AURA, for the overall conduct of Gemini. The Gemini Board, through the Executive agency and AURA, will ensure that the Director is delegated the authority commensurate with that responsibility. The Director must provide clear leadership and direction of a scientific and technical management team;
3. Is responsible for ensuring that the science requirements as approved by the Gemini Board are met;
4. Is appointed by AURA subject to approval by the Gemini Board through the Executive Agency;
5. Communicates freely and directly with the Gemini Board and other entities in Gemini¹; and,
6. Maintains effective communications between Gemini and the scientific communities of the partner countries, maintains effective communications with Gemini related science and user advisory bodies², ensures that the management of Gemini is sensitive to the needs and aspirations of all the partners, and establishes and maintains good working relationships with the host organizations in Hawaii and Chile and with the national observatories and offices of each partner country. The Director is encouraged to work with these national entities so that Gemini optimally serves the science communities of the partner countries.

¹The Director is designated as "Key Personnel" in the Cooperative Agreement. The Gemini Board participates in the evaluation of the Gemini Director. AURA evaluates the Gemini Director's performance against the job description approved by the Gemini Board and seeks the Gemini Board's input in this evaluation. Formal direction from the Gemini Board is communicated to the Director through the Executive Agency and through the President of AURA. Similarly, all formal requests for guidance or decision flow from the Gemini Director through the AURA President and the Executive Agency to the Gemini Board. In all matters other than formal direction or requests for direction, the Director communicates freely and directly with the Gemini Board and other entities in Gemini.

² These include, but are not limited to, the National Gemini Offices, Committee of Gemini Offices, Gemini Science and Technology Committee, and the International Time Allocation Committee.

C. SPECIFIC RESPONSIBILITIES

The Gemini Director will:

1. Keep the Gemini Board and AURA informed and advises them of aspects or issues affecting the success of Gemini;
2. Assemble a high quality, internationally recognized scientific and technical staff, advocates resources and programs that will ensure Gemini remains a competitive and cutting edge scientific facility;
3. Develop and articulate a vision for the future of Gemini, act to maintain Gemini at the state of the art of science, technology, and instrumentation, and is encouraged to propose initiatives to build upon Gemini;
4. Communicate early and work cooperatively with stakeholders including oversight, advisory, and users committees and with the national observatories of the partners in resolving issues and developing initiatives that may affect them;
5. Motivate scientific and technical staff to remain at the forefront of science. This can include but is not limited to carrying out personal programs of scientific research in astronomy or astrophysics;
6. Set financial, technical, and managerial strategy as required for the effective execution of Gemini subject to overall strategy set by the Gemini Board;
7. Make financial commitments and payments within the limits that are set and reviewed from time to time by the Gemini Board, and implements and administer subawards (subcontracts) in support of Gemini; and,
8. Administer Gemini, hire staff and sets salaries within broad guidelines established and reviewed from time to time by AURA, and within the budget approved by the Gemini Board.

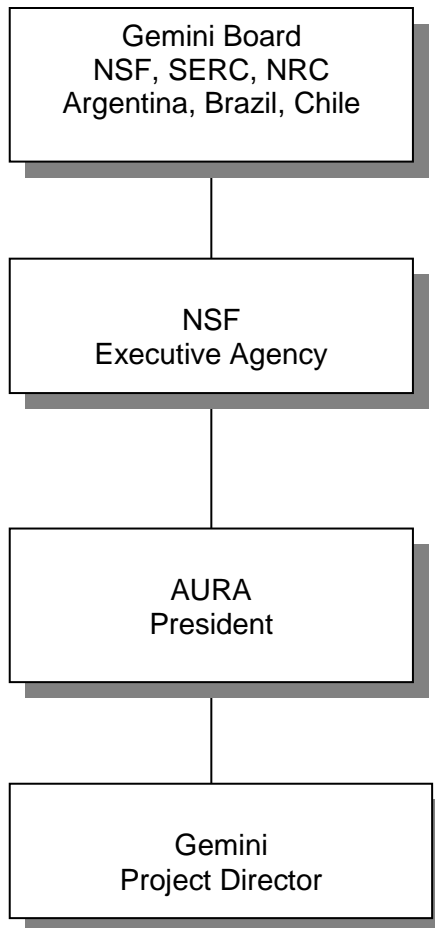
D. ADDITIONAL RESPONSIBILITIES OF THE GEMINI DIRECTOR (include, but are not limited to):

1. Prepare annual operating plans and budgets subject to the overall policy and strategic guidance of the Gemini Board;
2. Prepare annual reports on the state of Gemini;
3. Keep the Gemini Board Chair and the AURA President informally apprised in a timely manner of major issues that may affect Gemini;
4. Participate in meetings of the Gemini Board providing such input as may be required or necessary to manage Gemini;
5. Participate in meetings of appropriate management oversight committees and the Gemini Science Committee;

6. Establish working relationships with the host organizations in Hawaii and Chile;
7. Maintain liaison with the Gemini Offices of the partner countries, as appropriate;
8. Implement AURA policies and procedure. Support audits by AURA to assess compliance; recommending such changes as appropriate to the AURA President; and,
9. Maintain a safe and effective work environment
10. Submit salary recommendations to the AOC-G and the AURA Board of Directors;
11. Recommend candidates for tenure to the AOC-G; and,
12. Participate in a program of individual research as time permits.

ATTACHMENT 1

(Organization Chart for Gemini Director)



III. ROLE AND RESPONSIBILITIES OF CENTER DIRECTORS (continued)

SPACE TELESCOPE SCIENCE INSTITUTE (STSCI) DIRECTOR

A. ORGANIZATIONAL PURPOSE OF STScI

The Space Telescope Science Institute (STScI) is an organization established, operated, and maintained by AURA, to perform scientific tasks in support of contracts with the National Aeronautics and Space Administration (NASA). These contracts may involve an integrated science program and include: solicitation, selection, and support of observers and archival researchers; detailed science planning; science observation operations; archiving operations; routine science data calibrations; and science data analysis or some combination.

B. STScI DIRECTOR'S ROLE

The STScI Director:

1. Has the key responsibility to provide scientific leadership to the Institute. The Director has responsibility for the operation, management, and planning at the Institute within AURA and NASA policies and guidelines. The Director will conduct a program to encourage visiting scientists and to establish a scientific staff of the first rank to carry out the mission of the Institute and to conduct their own research. The Director is responsible for the production and implementation of STScI plans and programs to carry out the assigned task. In addition, the Director will keep AURA, and the NASA Program Offices informed of STScI progress in meeting contractual obligations;
2. Is responsible for providing AURA, advice and/or action alternatives on those matters which might have an impact on the STScI but which are outside the STScI purview. This might include but is not limited to such items as: Board of Directors, STIC, and STScI Visiting Committee composition and membership; negotiations with NASA; operational methodology of the AURA oversight structure for the STScI; AURA (other than STScI) interaction with NASA and others involved in the overall NASA programs; and major modifications to AURA's contracts with NASA;
3. Is responsible for technical direction and administration of subcontracts; and,
4. Is accountable to the President for the performance of the STScI and will bring to the attention of the AURA Board and STIC issues and opportunities, which might impact on the success of the Institute in carrying out its delegated contractual responsibilities.

C. SPECIFIC RESPONSIBILITIES

The STScl Director will:

1. Direct and manage the operations and personnel of the STScl in accord with the terms of the NASA contracts, within AURA and NASA policy, to include the effective integration of personnel from the several cultures, which do or will comprise the STScl (AURA, ESA, Computer Science Corporation and Visiting Fellows) into a unified whole dedicated to the success of the scientific effort;
2. Make commitments and expenditures in support of the STScl tasks within delegated authorization levels;
3. Exercise technical direction and administration of the NASA contracts, informing and advising the AURA President of those aspects, which are beyond the purview of the Director;
4. Prepare an annual report to be forwarded to the AURA Board of Directors and Member Representatives;
5. Submit annual operating plans and budgets for review by STIC and the AURA Board of Directors at their regular meetings;
6. Seek advice and counsel of STIC on matters affecting science policies of the STScl;
7. Aid the STIC Chair in setting the agenda of STIC meetings;
8. Provide support for the STScl Visiting Committee (VC); provide its Chair with information as requested; respond to the STIC on VC Reports;
9. Keep the AURA President and the STIC Chair apprised of major issues which may affect operations of STScl;
10. Submit salary recommendations to the STIC and the Board of Directors;
11. Recommend candidates for tenure to the STIC;
12. Implement AURA policies and procedures;
13. Maintain a working relationship with the Johns Hopkins University (JHU);
14. Identify opportunities in new areas of research; and,
15. Maintain a safe and effective working environment.

III. ROLE AND RESPONSIBILITIES OF CENTER DIRECTORS (continued)

LARGE SYNOPTIC SURVEY TELESCOPE (LSST) DIRECTOR

A. ORGANIZATIONAL PURPOSE OF THE LSST PROJECT

The LSST Director is employed by AURA. All AURA Directors are expected to exercise scientific leadership for both the scientific community and AURA. The LSST is supported by a variety of stakeholders including the National Science Foundation, the Department of Energy, and private and international partners. Over the next decade, the LSST Project Office (LPO), led by the Director, must carry out a successful construction program for the telescope and site, camera, and data management systems within cost and schedule, and transition to a fully functioning observatory.

The LSST Project has been established in order to construct a telescope, camera and data delivery system that will enable a ten-year survey of the southern sky. The data from the survey will be made available to U.S. and Chilean astronomers without proprietary period and to international partners who make contributions to the operations costs under terms to be determined. The LSST project was selected as the highest priority ground-based project by the 2010 astronomy and astrophysics decadal survey.

In 2011, the LSST Corporation Board and AURA reached an agreement under which the LSST construction project is being carried out as a discrete AURA unit under a dedicated cooperative agreement with the NSF. Under the agreement with AURA, the LSST Board recognizes AURA's final authority with respect to ensuring compliance with the terms and conditions of the Cooperative Agreement with NSF for construction of the LSST project. The tasks under the cooperative agreement are aimed at reducing the principal items of risk during the completion of the design and development phase, and carrying out a construction project within cost and schedule.

The LSST will soon begin a seven year construction phase where a high priority for the Director is leadership of a construction project with attention to technical performance, schedule and budget. Frequent interactions with federal funding agents and their business auditors will be required.

The Large Synoptic Survey Telescope Project Office (LPO) is a Center of the Association of Universities for Research in Astronomy, Inc. (AURA). The LPO provides the program management, budget control, and system engineering necessary to design, construct, integrate, and commission the LSST Project. The LSST Director directs and is responsible for all activities by the LPO. Subject to funding provided by the Department of Energy (DOE), SLAC will undertake the design, construction and delivery of the LSST camera. Subject to funding provided by the National Science Foundation (NSF) and private sources, the LPO will directly undertake the design, construction and commissioning of all other components of the LSST Observatory; this includes but is not limited to the telescope, site facilities, data management, education and public outreach (EPO), and data access centers. DOE and

NSF have established a Joint Oversight Group (JOG), which will coordinate the interaction between LPO and SLAC and the two federal agencies. The Director, together with the Deputy Director, and Project Manager will be responsible for establishing and maintaining high-level, coordinating schedule milestones that may be approved or changed only by the JOG.

B. LSST DIRECTOR'S ROLE

The LSST Director:

1. Is responsible for the LSST Project management and reports through the President of AURA to the Board of Directors of AURA, with oversight carried out by the AURA Management Council for LSST (AMCL)
2. Is responsible for selection of the Project Manager and other key personnel through whom this program is planned, conducted, and monitored; for assignment of authority and resources to these staff members consistent with AURA policy; and for overseeing their performance and providing guidance.
3. Is responsible for conducting the program in a manner consistent with the policy guidelines provided by AURA and NSF and, as appropriate, to recommend extension or modification of such policy.

C. SPECIFIC RESPONSIBILITIES

The LSST Director will:

1. Ensure that the science requirements as documented at the time of the Final Design Review are met.
2. Recommend and implement data access policies in accordance with Federal Guidelines.
3. Establish and maintain the organizational structure of the LPO in order to carry out the design, development, and construction activities in a manner meeting NSF contractual requirements;
4. Coordinate the work being done with NSF funding and with DOE funding to ensure that there is a single, unified LSST project.
5. Respond to and support the AURA Management Council for LSST and other pertinent AURA Board committees.
6. Prepare and submit to NSF, subsequent to AURA approval, all required plans and reports including, if appropriate, annual and long-range program plans to reflect the needs of the project.
7. Submit salary recommendations to the AMCL and the AURA Board of Directors;

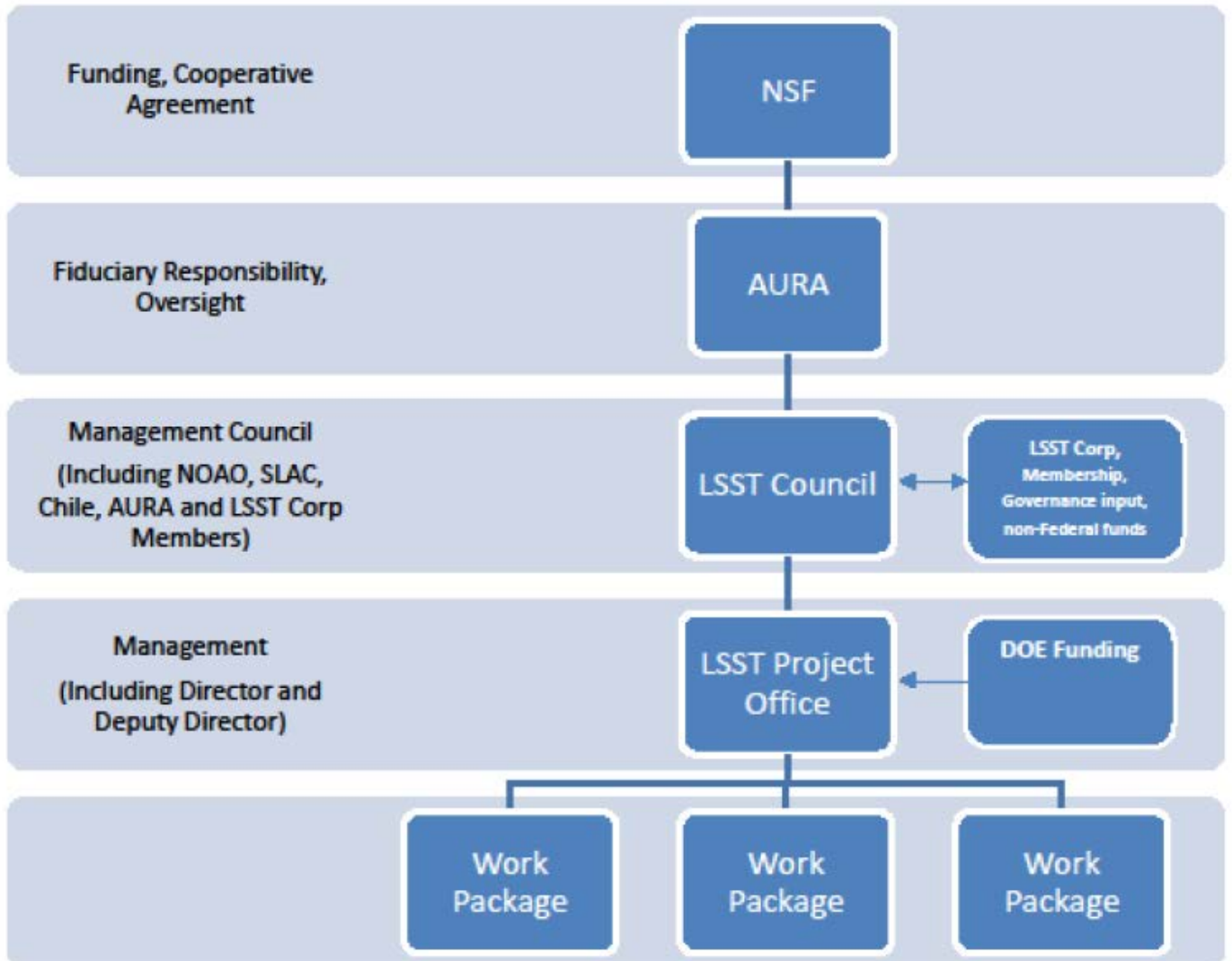
8. Serve as principal interface for programmatic matters between AURA and the appropriate NSF program office and exercise substantial delegated responsibility for such interface in contractual matters.
9. Serve as the principal spokesperson to the astronomical and physics scientific communities on matters relating to LSST.
10. Maintain a safe and effective work environment.
11. Carry out the LSST project in a manner that advances NSF goals for broadening participation, advancing technology, and developing future human resources.

D. ADDITIONAL RESPONSIBILITIES RELATED TO LSSTC

In recognition of the role of the LSSTC, the LSST Director will:

1. Keep the LSSTC Board and AURA informed and advise them of aspects or issues affecting the success of LSST.
2. Participate in meetings of the LSSTC Board providing such input as may be required or necessary for the LSSTC Board to be fully informed of the status of the project and to carry out their responsibilities as described in the MOU between AURA and LSSTC, including specifically ensuring that the interests of both the physics and astronomy communities are represented in the governance of the project and in the establishment of scientific policies.
3. Keep the AURA President, the LSSTC Board Chair, and AMCL Chair informally apprised in a timely manner of major issues that may affect LSST.
4. Work with the LSST Science Collaborations to engage them in the LSST project to ensure that they are prepared to use LSST data effectively as soon as observations become available.

LSST Organizational Chart



IV. VISITING COMMITTEES (VC)

STSCI – Space Telescope Science Institute

A. POLICY

It is the Policy of the Association of Universities for Research in Astronomy (AURA) to create an Institute Visiting Committee (IVC) comprised of members of diverse expertise who have no direct connection with AURA, to advise the AURA Board of Directors in a biennial peer review on the health and well being of the Space Telescope Science Institute (STScI) and of the effectiveness of AURA as the managing entity. In the alternating years an Interim Institute Visiting Committee (IIVC) will conduct a less in-depth review of the STScI under the auspices of AURA's Space Telescope Institute Council (STIC; STIC provides the principal on-going focus for AURA's oversight of the STScI). In addition, after giving notice to the STScI Director and the National Aeronautics and Space Administration (NASA) designated Contracting Officer, the Chair of the IVC or IIVC shall report formally to the cognizant NASA Program Office.

B. SCOPE AND BACKGROUND

Effective February 11, 1981, AURA contracted with NASA to establish, operate, and maintain the STScI so that the STScI could conduct the science operations program of the Space Telescope (ST). Since that time, the STScI has become a Center supporting more than one NASA program. As a consequence, the role of the IVC affects more than one program.

C. POLICIES AND GUIDELINES

1. Membership:

The IVC will consist of six or more members, at least four of whom will be astronomers. The IVC members will be selected by the STIC on the basis of their experience and judgment, including that related to expertise in managing a large scientific service organization. Appropriate concern will be given to obtaining a reasonable balance in the expertise represented among appointed IVC members. In order to provide appropriate continuity, IVC members will serve staggered three-report, effectively six-year, terms. Appropriate concern will be given to constitute a balanced committee in terms of gender and ethnic representation, as well as discipline. No AURA employee, member of the Board or the Directors, or consultant to AURA may serve on the IVC. Individuals considered for IVC membership shall be required to disclose any potential conflicts of interest between the IVC role and other non-AURA related activities (e.g., relationships with AURA competitors).

The IIVC shall consist of three members: a STIC member, the current IVC Chair, and a designated member of the IVC.

IVC and IIVC members will be reimbursed by the STScI, in accordance with STScI procedures, for expenses in performing their visiting functions.

2. Structure:

The IVC Chair will be elected by the STIC from among the appointed members of the IVC and upon recommendation by the Chairman of STIC. The IVC Chair is appointed by AURA with the concurrence of the cognizant NASA Programs Office, for a nominal two-report, or four-year, term. After such period, at the discretion of the AURA President, the IVC Chair may remain on the committee as a regular member for one more report to provide continuity and to support the following Chair.

D. FUNCTIONS OF THE INSTITUTE VISITING COMMITTEES

1. The IVC will provide the equivalent of peer reviews of the STScl to the STIC and to the AURA Board of Directors. The IVC will focus on the status and health of the STScl and the ability of the STScl to carry out its mission. The specific tasks of the IVC include:
 - a. Assess how effectively the STScl is functioning as a service-oriented national astronomical research center;
 - b. Assess how effectively STScl fulfills its major mission of managing the science operation center for HST and preparing to be the science operation center for JWST;
 - c. Evaluate the overall productivity and quality of research and the general professional stature of the scientific staff. Such evaluations could include a review of published research by the scientific staff, and an assessment of scientific productivity over an appropriate period of time;
 - d. Evaluate the implementation of AURA policies and best practices;
 - e. Assess the adequacy of AURA or NASA policies with respect to STScl; and
 - f. Advise the STIC, the AURA Board, and after appropriate notification, the cognizant NASA Program Office(s), of its findings.
2. The IVC may examine any facet of operations of the STScl, and of AURA as the managing entity.

E. STScl VISITS

1. Scheduling

The IVC will visit the STScl biennially. The IIVC will visit the STScl in alternating years from the IVC. The IVC, or some of its members, may visit more often if needed to review an STScl activity in greater depth.

Such additional visits may be called by the IVC Chair with the approval of AURA's President.

2. Agenda Distribution

The IVC Chair will prepare an agenda and a list of the major topics to be reviewed during the IVC visits and will furnish a copy to the STScl Director and the AURA President at least one month before the VC visit.

3. STScl Director/Board Representative Presence

The IVC is encouraged to invite the STScl Director and Deputy Director and one or more members of the STIC and/or AURA Board to meet with the IVC to discuss the IVC preliminary findings before its report is written. This practice allows early recognition and clear understanding by responsible AURA officials of any problems perceived by the Committee and correction of possible IVC misperceptions. The AURA President will normally be available during VC visits to answer questions and meet informally with the Committee at the end of each visit.

As requested by the IVC Chair, the STScl Director and/or AURA President will provide the Committee with relevant reference material, such as that supporting the Director's most recent annual report to the AURA Board of Directors, copies of minutes of the STIC meetings of the preceding twelve months, copies of any relevant AURA policies and other documents that may assist the IVC in fulfilling its mission.

F. INSTITUTE VISITING COMMITTEE REPORTS TO AURA

A report on each visit to the STScl will be prepared by the IVC and transmitted through the AURA President to the STIC and to the STScl Director within a reasonable time following each visit. After STIC review and acceptance, the STScl will provide sufficient copies to the AURA President for distribution to the AURA Board. In addition to receiving written reports from the IVC, AURA may invite the IVC Chair to attend the STIC meeting at which the Committee's report is considered. The IVC Chair is encouraged to accept such invitations if there are any significant issues which the STIC or AURA can resolve.

1. Content:

The IVC visit report should cover the tasks described in Section D of this policy. The IVC should be unbiased, objective, critical, and balanced in its appraisals. Recommendations, if any, should be clearly identified as such. The report will contain a summary of the process, the major findings, and specific recommendations.

2. Report Distribution:

Written IVC reports will be received by the AURA President, who will distribute copies to the STScl Director and to the STIC.

The STScl Director will make a timely response to the STIC via the AURA President on the topics covered in the report. After STIC considers the IVC report and the STScl Director's response, the IVC report will be distributed to the AURA Board. Based on the Director's response and comments from the AURA President, the STIC will prepare an appropriate response to the IVC report (including the Director's response as an attachment) and transmit this set of Documents to the AURA Board of Directors for acceptance.

The STIC's comments will be adopted as those of AURA; but in unusual circumstances, additional commentary representing the AURA Board's perspective on the report may be provided to the AURA President and STScl. After AURA Board action, AURA's President will provide the AURA and STScl Director's responses to the IVC. Further, with the IVC Chair and AURA concurrence, the AURA President will ensure delivery of the IVC report and related responses to the cognizant NASA Program Office(s) in a timely fashion before the contractual deadline. After their transmittal to the AURA Board and to NASA, the IVC report and subsequent responses may be made available by the AURA President to others upon request.

3. Privileged Portions of Reports

In its reports, the IVC should not hesitate to discuss any issues of concern including frank, general comments regarding any aspect of STScl, including the staff, but without naming specific individuals. If the IVC also sees a need to comment critically upon the work of individuals it should do so in a detachable, "privileged" portion of its report, which will be accessible only to the STScl Director, AURA Officers, STIC, and the AURA Board, and will not be forwarded to NASA. The non-privileged portions of such a report should not include a reference to any privileged portions.

IV. VISITING COMMITTEES (VC) Continued:

NOAO – National Optical Astronomy Observatory

A. POLICY

It is AURA policy to establish and maintain a means for conducting independent program assessment in order to evaluate the performance of its observatories and its governance in fulfilling our mission and contractual obligations to our funding agencies. To this end an NOAO Observatory Visiting Committee (OVC) made up of members with relevant backgrounds, having no direct connection with AURA, will advise the Board of Directors on a periodic basis in a “peer review” capacity as to the scientific productivity, management, and overall health and well-being of the National Optical Astronomy Observatory.

B. SCOPE AND BACKGROUND

AURA established its initial Visiting Committee for NOAO in 1971. In 1978 a separate Visiting Committee for the Sac Peak Observatory was established. These merged in 1981. In 2003, with the establishment of a new cooperative agreement, NSF established a special Program Review Panel intended to assist and advise the Astronomy Division in its oversight and assessment of NOAO (excluding NSO). In view of the functional similarity of that committee, AURA temporarily suspended the activities of its visiting committee during the period of that cooperative agreement. In 2007, AURA resumed its Visiting Committee activity in order to strengthen its management and oversight functions in areas not otherwise addressed by the NSF Program Review Panel.

C. POLICIES AND GUIDELINES

The Observatory Council is delegated the responsibility for constituting and guiding the activities of the OVC. The OVC will be elected by the Observatory Council and will be composed of not less than six members. Such members shall be from varying backgrounds but shall not be Member Representatives or on any AURA governance entity elected by the Member Representatives. Members will serve for four year terms. The Chairperson shall be appointed from within the membership of the Visiting Committee. The Committee will prepare for the AURA Board of Directors a report of its visits, including findings and recommendations. After acceptance by the Board, the report and AURA responses thereto will be made available to National Science Foundation.

D. FUNCTIONS OF THE VISITING COMMITTEE

The goal of the Visiting Committee will be to assess the performance of NOAO as a whole including its observatory sites and major organizational components. The Observatory Council may, at its discretion, charter specific visits to focus on specific areas or functions within NOAO.

It is expected that the Visiting Committee’s review will provide the equivalent of “peer reviews” of the observatory. In addition to any specific areas chartered by the Observatory Council, The OVC is encouraged to examine any facet of operations of

NOAO or of AURA, as its managing entity, which the Committee wishes to review that might relate to the performance of the organization.

The Director of NOAO will provide the Visiting Committee with the NOAO Program and Long Range plans for prior years, as well as descriptions of research for use in the assessment of staff research as described immediately below. In addition, at the request of the Observatory Council, the Director will provide an overall self-assessment of NOAO. The Corporate Office will provide the Committee with an accounting of relevant activities of the Observatory Council, of the AURA Board and other relevant committees having a bearing on the direction and performance of NOAO.

1. Assessment of NOAO as a National Organization

The Visiting Committee will be expected to pay particular attention to the effectiveness of NOAO as a national organization both in terms of visitor-oriented facilities and national system leadership. The Visiting Committee will focus on the status and health of NOAO as related to the Program Plan and Long Range Plans. The specific roles of the OVC will be primarily to:

- a. Review how effectively the Observatory and its components are functioning as national astronomical facilities and research institutions;
- b. Review how well AURA policies are being carried out in that regard;
- c. Review the adequacy of the AURA policies with respect to the Observatory functions; and,
- d. Advise the AURA Board accordingly.

2. Assessment of Staff Research

The OVC is expected to evaluate the general professional stature, research productivity, and quality of research output of the scientific staff at NOAO. The evaluation should include as many of the following steps as possible and appropriate:

- a. Review of preprints and reprints of published results;
- b. Review of quality and effectiveness of instrumentation developed by staff;
- c. Comparison of productivity with what might be expected on the basis of past years' program plans when these are considered over an appropriate period of time—e.g., three years;
- d. Face-to-face discussion of research programs with appropriate members of the scientific staff, individually and/or in committee sessions; and,

- e. Results of reviews by the Telescope Allocation Committee of staff requests for telescope time, if available.

3. Self-evaluation by NOAO Divisions

In order to enable the OVC to carry out periodic comprehensive reviews of the science at NOAO in greater depth than is possible in a visit of a few days, visited NOAO divisions are expected to prepare self-evaluations of the health of science as seen by the division itself. The scope of a self-evaluation shall be such that, in the opinion of the Director of the division to be visited, it fairly represents the nature, quality, and scope of research underway by the scientific staff and to the extent feasible of research by visitors.

- E. OBSERVATORY VISITS

1. Scheduling

The OVC will meet at such times chartered by the Observatory Council. All NOAO programs will be reviewed at least once every three years. Also, each research organization reporting to the Director will be reviewed at least once every three years.

2. Observatory Director AURA Corporate Office

The OVC will be encouraged to invite the NOAO Director, the Associate Directors, and the AURA President to meet with them informally at the end of the visit to discuss their major findings before their report is written.

- F. VISITING COMMITTEE REPORTS TO AURA

A visit report will be prepared by the OVC and transmitted to the AURA Board through the President pending acceptance by the Observatory Council. The Director of NOAO will provide a response accompanying the report.

1. Content

The Committee Report should specifically include the Committee's evaluation of the effectiveness of NOAO as a visitor-oriented institution and the productivity of its scientific staff in research and instrumentation development. The OVC report is an important element in the Board's assessment of the effectiveness of NOAO as a research center. Therefore, the OVC should be unbiased, objective and critical in its appraisals.

2. Report Distribution

Written reports by the OVC will be received by the AURA President who will transmit them to the AURA Board for consideration at the time of its next regular meeting. The report and responses to it will be transmitted to the NSF Division of Astronomical Sciences after January 1 of each year. The OVC report and responses will be made available to others at the discretion of the AURA President.

3. Privileged Portions of Reports

In its reports the OVC may discuss any matters that are impersonal or general in nature. However, occasionally the OVC may also see a need to comment critically upon the productivity of individual managers or scientists. These and any other comments regarding personnel matters must be included in the privileged portion of the report. This communication will be accessible only to the members of the AURA Board, the Observatory Council, the Director of NOAO and the Associate Director concerned.

IV. VISITING COMMITTEES (VC) Continued:

NSO – National Solar Observatory

A. POLICY

It is AURA policy to establish and maintain a means for conducting independent program assessment in order to evaluate the performance of its observatories and its governance in fulfilling our mission and contractual obligations to our funding agencies. To this end an NSO Solar Observatory Visiting Committee (SVC) made up of members with relevant backgrounds, having no direct connection with AURA, will advise the Board of Directors on a periodic basis in a “peer review” capacity as to the scientific productivity, management, and overall health and well-being of the National Solar Observatory.

B. SCOPE AND BACKGROUND

AURA established its initial Visiting Committee for NOAO in 1971. In 1978 a separate Visiting Committee for the Sac Peak Observatory was established. These merged in 1981. In 2003, with the establishment of a new cooperative agreement, NSF established a special Program Review Panel intended to assist and advise the Astronomy Division in its oversight and assessment of NOAO (excluding NSO). In view of the functional similarity of that committee, AURA temporarily suspended the activities of its visiting committee during the period of that cooperative agreement. In 2007, AURA resumed its Visiting Committee activity in order to strengthen its management and oversight functions in areas not otherwise addressed by the NSF Program Review Panel.

C. POLICIES AND GUIDELINES

The Solar Observatory Council is delegated the responsibility for constituting and guiding the activities of the SVC. The SVC will be elected by the Solar Observatory Council and will be composed of not less than six members. Such members shall be from varying backgrounds but shall not be Member Representatives or on any AURA governance entity elected by the Member Representatives. Members will serve for four year terms. The Chairperson shall be appointed from within the membership of the Visiting Committee.

The SVC will prepare for acceptance by the AURA Board of Directors a report of its visits, including findings and recommendations. After acceptance by the Board, the report and AURA responses thereto will be made available to National Science Foundation.

D. FUNCTIONS OF THE VISITING COMMITTEE

The goal of the Visiting Committee will be to assess the performance of NSO as a whole including its observatory sites and major organizational components. The Solar Observatory Council may, at its discretion, charter specific visits to focus on

specific areas or functions within NSO.

It is expected that the Visiting Committee's review will provide the equivalent of "peer reviews" of the observatory. In addition to any specific areas chartered by the Solar Observatory Council, The SVC is encouraged to examine any facet of operations of NSO or of AURA, as its managing entity, which the Committee wishes to review that might relate to the performance of the organization.

The Director of NSO will provide the Visiting Committee with the NSO Program and Long Range plans for prior years, as well as descriptions of research for use in the assessment of staff research as described immediately below. In addition, at the request of the Solar Observatory Council, the Director will provide an overall self-assessment of NSO. The Corporate Office will provide the Committee with an accounting of relevant activities of the Solar Observatory Council, of the AURA Board and other relevant committees having a bearing on the direction and performance of NSO.

1. Assessment of NSO as a National Organization

The Visiting Committee will be expected to pay particular attention to the effectiveness of NSO as a national organization both in terms of visitor-oriented facilities and national leadership. The SVC will focus on the status and health of NSO as related to the Program Plan and Long Range Plans. The specific roles of the SVC will be primarily to:

- a. Review how effectively the Observatory and its components are functioning as national astronomical facilities and research institutions;
- b. Review how well AURA policies are being carried out in that regard;
- c. Review the adequacy of the AURA policies with respect to the Observatory functions; and,
- d. Advise the AURA Board accordingly.

2. Assessment of Staff Research

The SVC is expected to evaluate the general professional stature, research productivity, and quality of research output of the scientific staff at NSO. The evaluation should include as many of the following steps as possible and appropriate:

- a. Review of preprints and reprints of published results;
- b. Review of quality and effectiveness of instrumentation developed by staff;
- c. Comparison of productivity with what might be expected on the basis of past years' program plans when these are considered over an appropriate period of time—e.g., three years;

- d. Face-to-face discussion of research programs with appropriate members of the scientific staff, individually and/or in committee sessions; and,
- e. Results of reviews by the Telescope Allocation Committee of staff requests for telescope time, if available.

3. Self-evaluation by NSO Divisions

In order to enable the SVC to carry out periodic comprehensive reviews of the science at NSO in greater depth than is possible in a visit of a few days, visited NSO divisions are expected to prepare self-evaluations of the health of science as seen by the division itself. The scope of a self-evaluation shall be such that, in the opinion of the Director of the division to be visited, it fairly represents the nature, quality, and scope of research underway by the scientific staff and to the extent feasible of research by visitors.

E. OBSERVATORY VISITS

1. Scheduling

The SVC will meet at such times chartered by the Solar Observatory Council. All NSO programs will be reviewed at least once every three years. Also, each research organization reporting to the Director will be reviewed at least once every three years; and,

2. Observatory Director AURA Corporate Office

The SVC will be encouraged to invite the NSO Director, the Associate Directors, and the AURA President to meet with them informally at the end of the visit to discuss their major findings before their report is written.

F. VISITING COMMITTEE REPORTS TO AURA

A visit report will be prepared by the Visiting Committee and transmitted to the AURA Board through the President pending acceptance by the Solar Observatory Council. The Director of NSO will provide a response accompanying the report.

1. Content

The SVC Report should specifically include the Committee's evaluation of the effectiveness of NSO as a visitor-oriented institution and the productivity of its scientific staff in research and instrumentation development. The SVC report is an important element in the Board's assessment of the effectiveness of NSO as a research center. Therefore, the SVC should be unbiased, objective and critical in its appraisals;

2. Report Distribution

Written reports by the SVC will be received by the AURA President who will transmit them to the AURA Board for consideration at the time of its next regular meeting. The report and responses to it will be transmitted to the

NSF Division of Astronomical Sciences after January 1 of each year the SVC report and responses will be made available to others at the discretion of the AURA President; and,

3. Privileged Portions of Reports

In its reports the SVC may discuss any matters that are impersonal or general in nature. However, occasionally the SVC may also see a need to comment critically upon the productivity of individual managers or scientists. These and any other comments regarding personnel matters must be included in the privileged portion of the report. This communication will be accessible only to the members of the AURA Board, the Solar Observatory Council, the Director of NSO and the Associate Director concerned.

V. EVALUATION OF THE AURA PRESIDENT AND CENTER DIRECTORS

A. POLICY

The AURA President and the Directors of AURA-managed Centers are appointed by the AURA Board of Directors and engaged under an employment agreement. An appointment may be renewed if recommended by an Independent Review Committee. This review must be completed one year before the termination date of the agreement. In the case of the President the Independent Review Committee will report its findings to the AURA Board of Directors. Independent Review Committees for Center Directors will report to the appropriate Center Management Council.

B. REVIEW PROCEDURES

1. Center Director Independent Review Committees will:
 - a. Be appointed by the Chair of the Board of Directors;
 - b. Consist of five members appointed by the Chair of the Board of Directors via input from the applicable management council;
 - c. Conduct a critical review of the Center Director's performance. This review must be completed one year before the termination date of the Directors employment agreement;
 - d. Report its findings to the AURA Center Management Council, including its recommendation regarding reappointment of the Director for an additional term; and,
 - e. The Center Management Council Chair subsequently reports its recommendations regarding reappointment to the Board of Directors.
2. Presidential Independent Review Committees will:
 - a. Be appointed by the Chair of the Board of Directors in consultation with the Board and Officers of the Corporation; and,
 - b. The Committee will function essentially as set forth in paragraph B.1 above, with the exception of its recommendation as to reappointment which will be made directly to the Board.

VI. CLOSURE OF BOARD AND COMMITTEE MEETINGS

A. POLICY

Meetings of the AURA Board of Directors and its Committees will be open to all interested persons. However, it is recognized that there may be items on the agenda of such meetings which would be more appropriately discussed in closed session.

B. PROCEDURES

1. Closed meetings of the AURA Board of Directors and its committees will be termed Executive Sessions.
2. Executive Sessions will function as follows:
 - a. Attendance at Executive Sessions will be restricted to members of the AURA Board of Directors, officers of the Corporation, and the Directors of AURA Centers;
 - b. Individuals of the latter two categories will be excused from portions of Executive Session agenda items involving either actual or potential evaluations of the performance of themselves, other individuals of the same category, or individuals to whom they report. Such items shall be explicitly identified in advance on the agenda and shall include, but not be limited to, reports and discussions concerning Visiting Committees, Review Committees, and salary recommendations;
 - c. Any individual or individuals may be invited to participate in an Executive Session by explicit assent of those meeting; and,
 - d. By informing the Chair, any voting member of the full AURA Board of Directors or of a committee, may request the exclusion of any or all non-voting members in order to allow a confidential discussion.

VII. BUSINESS ETHICS

A. POLICY

AURA is a non-profit corporation performing scientific research with funds provided by the U.S. government. All Directors, Officers, Committee members, and employees are expected to perform their duties in such a manner as to reflect credibly on the corporation, and to confirm and reinforce the trust given to AURA through its contracts, grants and cooperative agreements.

Each AURA Center is expected to develop detailed policies and guidelines for handling this issue on an institutional basis in the conduct of its duties. This policy sets forth a set of principles and practices provided to set parameters and provide guidance and direction for all AURA staff members.

B. IMPLEMENTATION

All parties, regardless of position, are subject to the following set of practices as a minimum guideline for ethical conduct. While specific guidelines are provided they do not address every situation. These guidelines are to inform all parties of the principles of behavior applicable to all situations. All employees are to demonstrate:

1. Accountability
 - a. Abide by Federal, State and local law and regulation;
 - b. Abide by the specific regulations of the funding agencies as referenced in AURA agreements with such agencies;
 - c. Abide by Corporate Policy and the AURA Observatories/AOSS Charter;
 - d. Respect the confidentiality of sensitive information that may be in their possession; and,
 - e. Protect all information and resources from loss, theft and misuse.
2. Avoidance of conflicts of interests:
 - a. Avoid any appearance of a conflict of interest;
 - b. Do not accept gratuities from vendors, potential vendors or others; and,

- c. Make known to decision makers any potential personal (including family), financial, professional or institutional relationships that may bias one's view point

Failure to abide by the ethics of conduct as reflected in this policy should be reported to ones manager, the manager of Human Resources, the Center Director, and the Compliance Officer defined in the Whistleblower Policy or the AURA President. Non- compliance with this policy may result in disciplinary action up to and including termination.

VIII. WHISTLEBLOWER

A. POLICY

The Association of Universities for Research in Astronomy, (AURA) requires directors, officers, and employees to observe high standards of business ethics in the conduct of their duties and responsibilities. Employees and representatives of AURA must practice honesty and integrity in fulfilling their responsibilities and comply with all applicable laws and regulations. Serious violations of such business ethical standards may fall under Policy Section B, Discipline.

It is the responsibility of all directors, officers and employees to report suspected violations of such business ethical standards of conduct in accordance with this Whistleblower Policy.

B. PROCEDURE

1. No director, officer, or employee who in good faith reports a violation of such business ethical standards of conduct shall suffer harassment, retaliation, or adverse employment consequence. Directors, officers or staff who retaliate against someone who has reported a suspected violation in good faith is subject to discipline up to and including termination of employment. This Whistleblower Policy is intended to encourage and enable employees and others to raise serious concerns within AURA prior to seeking resolution outside of AURA.
2. AURA maintains an "open door" policy and suggests that employees share their questions, concerns, suggestions or complaints with someone who can address them properly. In most cases, an employee's supervisor is in the best position to address an area of concern. However, this policy provides an alternative reporting route to ensure complete transparency. Any employee may report possible business ethical violations to the Center official having responsibility for the Human Resources function. Supervisors and managers, including Human Resources staff, are required to report suspected violations of the AURA ethical standards to the AURA Compliance Officer designated by the Chair of the Board of Directors, who has specific and exclusive responsibility to investigate all reported violations. Under exceptional circumstances, an employee may contact the AURA Compliance Officer directly.
3. AURA's Compliance Officer is responsible for investigating and resolving all reported complaints and allegations concerning violations of business ethical standards and, at his/her discretion, shall inform the President, Chair of the Board of Directors and together they will determine an appropriate course of action... The Compliance Officer has direct access to the Audit Committee and the Board of Directors and is required to report to the Board of Directors at least annually on compliance activity.

4. The Compliance Officer will notify the sender and acknowledge receipt of the reported suspected violation(s) within fifteen (15) business days. All reports will be promptly investigated and appropriate corrective action will be taken if warranted by the investigation.
5. Anyone filing a complaint concerning a suspected violation of the ethical standard of conduct must be acting in good faith and on reasonable grounds for believing the information disclosed indicates a violation of such ethical standards.

IX. AURA POLICY GOVERNING CONFLICT OF INTEREST

A. PREAMBLE

As a recipient of federal funding, AURA has a responsibility to ensure public stewardship of such funds and those related activities including research, observatory operations, community participation and public education and outreach. The public community should be confident that such activities remain unencumbered by potential conflicts of interest that might affect the sound judgment of officers, management, and staff. AURA recognizes that the decisions and actions of its employees may directly influence the public's perception of AURA as a whole.

AURA seeks to ensure that any economic activities it undertakes are consistent with the following core values.

- **Appropriate use of sponsor or government funds:** AURA ensures that its institutions, its leadership, scientists, committee members, and technical and administrative staff do not enter into a relationship where there may be an actual or perceived conflict of interest with their responsibilities and fiduciary obligations to AURA and its centers.
- **Integrity of administrative decision-making:** AURA's leadership and administration must be aware of and deal appropriately with potential conflict of interest situations, both real and perceived, which may exist or arise.
- **Objectivity and integrity of astronomical research:** The advancement of knowledge depends on the ability of scholars to formulate ideas free from the influence of conflicting interests.
- **Open publication and sharing of research results:** Agreements with outside entities and other economic activities should preserve an open environment for the conduct of astronomical research and public dissemination of the results of these activities.

The activities of each AURA Operating Center should be constituted so as to maintain public confidence in AURA as an organization committed to the advancement of astronomical science.

B. PURPOSE

Individuals in each of our operating centers and our corporate office may become involved in situations where their functions are conflicted by, or are perceived to be conflicted by, the opportunity for personal gain. This policy is established to provide appropriate institutional safeguards in order to sustain a climate in which the AURA Corporate and Center operations, management, procurement, sponsored projects, research, and technology transfer are carried out responsibly. In so doing we will foster an atmosphere of openness and integrity. It is critical to the mission and reputation of AURA to maintain the public's trust that our activities are not compromised, or perceived as biased, by financial and business considerations.

C. POLICY

AURA employees shall not enter into any relationships where there may be a perceived or actual conflict of interest with their responsibilities and obligations to AURA and its operating centers.

Each financial interest that presents a potential for conflicts of interest, whether real or perceived, must be fully disclosed and managed, reduced, or eliminated before any contract, sponsored project, dedicated gift, or transaction is executed, any contractual relationship is initiated, or any action is taken that might be influenced or appear to be influenced by the conflict of interest.

All full-time employees are required to give AURA their primary professional loyalty and to arrange their financial interests and other non-institutional activities so as not to conflict or interfere with their commitment to AURA.

All employees must be alert to the possible effects of their non-institutional activities on the objectivity of their decisions, on the fulfillment of their obligations and discharge of the AURA's responsibilities to the general public.

Employees should refrain from engaging in any non-institutional activities that interfere with the proper discharge of their AURA duties, nor should they engage in business, accept employment outside of AURA, or otherwise engage in any non-institutional activity when such business, employment, or activity creates a conflict of interest or a conflict of commitment as hereinafter defined.

Each AURA Operating Center must develop a Conflict of Interest Policy that will provide an oversight process to manage, reduce or eliminate institutional conflicts of interest, and allow the members of the scientific, technical, and administrative staff to identify, evaluate, correct and/or remove real, apparent and potential conflicts of interests and/or commitments. The AURA Center procedures must comply with applicable funding agency requirements and include:

1. Procedures for collecting Conflict of Interest Disclosure Forms from each employee and a process for annual review and updating of these forms by each employee;
2. Institutional mechanisms for review of alleged non-compliance;
3. Identification of staff who will be responsible for implementation of the Center's Conflict of Interest Policy (Conflict of Interest Officer).
4. Procedures for reporting non-compliance; and,
5. Detailed sanctions for non-compliance.

Allegations that include a Center Director should be reported to the AURA Corporate Office.

Center Conflict of Interest Policies and Procedures must be consistent with AURA Policy and established government rules and regulations pertinent to conflict of interest policies.

Any documented conflicts of interest relating to the administrative or financial aspects of a federally funded award must be reported to the AURA Corporate Office in writing. Such findings will be reviewed by the AURA Vice President for Administration, and addressed as required with the appropriate funding agency in the manner defined by the terms and conditions of the related funding document.

D. EMPLOYEE DISCLOSURE

AURA Centers are to establish a procedure in conjunction with their appointed Conflict of Interest Officer, whereby each AURA employee completes a Conflict of Interest (COI)

Disclosure form. New employees will be required to complete COI Disclosure Form at the time of hire.

The AURA COI Disclosure Form should be reviewed and if required updated annually by the employee. The Center COI Officer will audit and review each submission, ensuring compliance by the participant, which may include development of a plan for managing an apparent conflict. Plans created to manage an apparent conflict shall be reviewed annually until the activity is no longer relevant.

All forms, including annual update submissions and reports should be kept by the AURA Center and made available for review by the AURA Vice President for Administration or by the AURA Center COI Officer.

The Centers will keep the COI disclosure forms and copies of all actions taken to resolve conflicts of interests for three years beyond termination of the employee or completion of the grant or cooperative agreement, to which they relate, or until the resolution of any funding agency action involving those records which ever is longer.

E. REPORTING OF NON-COMPLIANCE

Allegations of non-compliance must be reported to the Center COI Officer. Allegations must be in writing and include any supporting documentation. All investigations shall be treated as confidential. Notification of any valid allegation under investigation should be reported to the Center Director.

F. RESOLUTION OF CONFLICTS

The Center COI Officer shall provide the individual subject to the allegation with a copy of the alleged charge. If after a preliminary review, the Center COI Officer determines that there is a potential violation then it shall be referred to the COI Resolution Committee (CRC). The individual subject to the allegation shall have an opportunity to present materials for the CRC to review.

Each Center shall establish a Conflict Resolution Committee. (CRC) At a minimum the committee members shall include:

- The Center COI Officer
- The Center Director or Deputy Director
- The Center Human Resources Manager
- An Ad Hoc Staff member appointed by the Center Director for each particular conflict.

If the CRC finds no violation, it shall so inform the employee in writing, and provide a copy of the finding to the COI Audit File.

If the CRC finds non-compliance with this Policy it shall make a written finding including a recommendation for sanction and send it to the employee, COI Officer and placed in the employee personnel file.

The employee may appeal the decision of the Conflict Resolution Committee to the AURA Vice President for Administration for final determination.

G. SANCTIONS FOR NON-COMPLIANCE

Definition of non-compliance includes failure to:

- a. Comply with this Policy
- b. Report accurately on the designated disclosure form
- c. Comply with decisions under the Policy.

The CRC may recommend one or more of the following disciplinary and/or administrative actions:

- a. Reprimands
- b. Fines
- c. Probation
- d. Suspension
- e. Freezing of research funds
- f. Withholding of payment owed under a procurement contract relating to the conflict
- g. Legal action to rescind AURA contracts entered into in violation of this COI policy or federal law
- h. Legal action to recover the amount of financial benefit received by an employee as a result of his or her violation of this policy
- i. Disqualification from an award, committee, project and/or a contract selection
- j. Termination

Procedures for imposing sanctions and the sanctions used shall be governed by existing AURA and other AURA Center Policies including those regarding grievances and/or termination.

If the conflict of interest has not been satisfactorily managed, AURA will notify the funding agency in writing as required.

Any penalties that may be imposed by an external funding agency shall be deemed separate from any imposed by AURA.

X. RECORDS RETENTION

- A. As a tax-exempt, non-profit organization, record keeping and record retention are very important. Although in many situations the requirements for a profit corporation and a non-profit corporation are identical, there are two specific considerations for the non-profit organization to have an established records retention policy:
1. In order to retain Federal Tax exemption, a non-profit organization must be able to establish that it is organized and operated as to the specified purpose that gave rise to the Internal Revenue grant of a tax exemption. AURA's non-profit classification is as a "scientific research" organization (IRC section 501(c)(3)).
 2. Under the federal Sarbanes-Oxley Act (2002), the destruction of documents in the face of a governmental inquiry is a criminal offense and applies to both profit and non-profit companies. Although there have been various state and federal requirements regarding the maintenance of records before Sarbanes-Oxley, it is now of utmost importance to maintain a policy of records retention and be aware of this law in the decision-making process for destruction of documents.
- B. The table marked as Attachment A, which is not specifically mandated by state or federal statute does provide a rational order of retention and disposal time-tables suggested by the possibility of disputes within the organization, litigation, and potential for audits by federal or state authorities. It is by no means a complete listing of organization filings. It should be used as a minimum guideline at the various company locations.

The following information is for use as to noted special situations:

1. Government Contracts, Awards, Grants, etc.:

AURA currently operates through various unincorporated "centers". The centers, as well as the corporate office receives its funding principally from U.S. Government contracts, co-operative agreements, grants, subcontracts or other federal contractual vehicles. Such contracts and awards, including operational and financial documents, must be retained for a period of **six (6) years** after the execution of final closing documents with the U.S. Government and an "assignment of all claims" under such efforts to the U.S. Government;
2. VEBA and VEBA Trust:

AURA has created a Voluntary Employee Benefit Association (VEBA) (IRC section 501(c)(9)) and a Trust to financially sustain its requirements. All records on this subject, including thereby actuarial reports, are to be treated and retained on a **Permanent** basis; and,

3. Intellectual Property:

The activities of non-profit organizations often produce valuable intangible property that should be protected to preserve its value. The various certificates, licenses, assignments, publication agreements, copyright and trademark registrations, royalty records, and other background material should be treated and retained as **Permanent** records.

The terms “records” and “records retention” include hard paper copy, computer disks, microfilm, scanned or digitized copies, magnetic and visual media, and such other electronic communications. All operating centers are required to implement this policy and also assess such other local or internal needs as may be necessary to assure compliance with prudent business practices.

ATTACHMENT A

RECORDS RETENTION POLICY

INSTITUTIONAL AND LEGAL RECORDS:

| | |
|---------------------------------------|-------------------------|
| Articles of Incorporation | Permanent |
| Charter | Permanent |
| By-Laws | Permanent |
| Minutes of Directors Meetings | Permanent |
| Minutes of Board Committee Meetings | Permanent |
| Deeds and Titles | Permanent |
| Leases | While active + 6 years |
| Patent & Trademark Records | While active + 12 years |
| State Qualification of Doing Business | Permanent |

FEDERAL TAX RECORDS

| | |
|--|-----------|
| Form 990 and support | Permanent |
| Form 990-T and support | Permanent |
| IRS Exemption Application & Determination Letter | Permanent |
| State Tax Exemptions | Permanent |

ACCOUNTING & FINANCIAL RECORDS

| | |
|---|------------------------|
| Accounts Receivable and Subsidiary ledgers | 10 years |
| Uncollected Accounts | 10 years |
| Accounts Payable and Subsidiary ledgers | 10 years |
| 1099 and other federal forms | 10 years |
| Check Registers | 10 years |
| Description of Accounting System | Permanent |
| General Ledgers & Operating Ledgers | While active + 9 years |
| Program Annual Financial Reports | While active + 9 years |
| Annual Financial Statements & Audit Reports | Permanent |

LITIGATION RECORDS

| | |
|---------------------------|------------------------|
| Claims | While active + 9 years |
| Court documents & Records | While active + 9 years |
| Discovery Materials | While active + 9 years |
| Settlement Documents | Permanent |

INSURANCE RECORDS

| | |
|--------------------------------|-------------------------|
| Property & Liability Policies | While active + 12 years |
| Insurance claims documentation | While active + 12 years |

BANK RECORDS

| | |
|---------------------------------|---------|
| Bank Statements | 7 years |
| Wire Transfer records | 7 years |
| Bank Reconciliation's & Support | 7 years |
| Canceled Checks | 7 years |

PERSONNEL FILES

| | |
|---|------------------------|
| Personnel Files including: I-9 records, applications & resumes, performance evaluations, Personnel Action forms, cobra notice, inventions and proprietary agreement etc. | While active + 6 years |
| EEO Records (AAP, EEO-1) | While active + 3 Years |
| Benefit Plans | While active + 6 Years |
| Application of non-selected Candidates | 2 Years |

ALL OTHER COMMUNICATIONS AND RECORDS NOT IDENTIFIED IN THIS LISTING SHOULD BE RETAINED AS A MINIMUM WHILE ACTIVE + 6 YEARS.

XI. INTELLECTUAL PROPERTY

A. INTRODUCTION & BACKGROUND

AURA employees, as a part of their normal professional duties, carry out research and engineering activities, which are sponsored by governmental and private entities through grants and contracts. AURA and its employees incur certain obligations to the funding agencies, such as disclosure and disposition of intellectual property.

AURA policy on intellectual property is based on the premise that the interests of AURA, its funding agency, and the public at large are best served when the results of federally funded research are legally protected and subsequently licensed or otherwise made available to industry for commercialization and consequent public benefit and use through programs of technology transfer in accordance with federal policies. However, in pursuing this goal, AURA must maintain the integrity and objectivity of its scientific and engineering programs and must fulfill its responsibility for the open exchange of information with the astronomical community. In appropriate situations, AURA may decide that its goals are best realized by placing the intellectual property into the public domain.

This Intellectual Property Policy is established to govern the ownership, evaluation, protection and commercialization of intellectual property developed by AURA employees. The provisions of this policy apply to all intellectual property conceived or first reduced to practice in the course of AURA research, development and engineering activities. The term Intellectual Property, as used in this policy, is defined as all technology, such as patentable or non-patentable inventions, discoveries, software, and copyright materials (See Appendix A).

AURA's Intellectual Property Policy reflecting the requirements of its major funding agency, NSF and NASA, applies to all research activities supported by government agencies as well as non-governmental organizations.

AURA considers the concepts, ideas and discoveries of its employees to be valuable assets warranting formal policies and procedures for protection. AURA recognizes that if creative intellectual effort is to be fostered and stimulated, there must be a fair appraisal of rights to commercially valuable intellectual property in order to give appropriate recognition to the interests of all parties involved.

B. POLICY GOALS AND OBJECTIVES

The goal of the Intellectual Property Policy is to encourage the application of technology from AURA-managed programs to the benefit of AURA, its Centers and staff, and the public at large. Toward this end, the objectives are:

1. To make intellectual property resulting from AURA research, development, and engineering activities available under conditions that will promote their effective development and utilization;
2. To protect AURA's and its funding agencies' rights and interests in intellectual

property developed in the course of AURA administered research, development and engineering activities;

3. To recognize the intellectual property rights and interests of AURA, AURA employees, and organizations sponsoring AURA activities;
4. To provide appropriate recognition and incentive to AURA employees through a share in any proceeds from commercialization of intellectual property developed by AURA employees; and
5. To provide mechanisms for determining the significance of any intellectual property.

C. ADMINISTRATION

AURA Corporate Office is responsible for Intellectual Property management and for providing policies, procedures, guidance, and assistance to AURA Centers. Accordingly, the Corporate Office is responsible for general administration of the Intellectual Property Policy. Periodically, the Corporate Office will report to the Board on the Intellectual Property Program. The Corporate Office is authorized to delegate to Center Directors operational functions and decision-making, as it deems desirable.

The Board of Directors may appoint, when necessary on an ad hoc, basis, a committee of not less than three (3) members, two (2) of which shall be Board Members, to serve as an Intellectual Property Advisory Committee to assist the Corporate Office in the administration of this Intellectual Property Policy.

The Corporate Office, upon information obtained from the inventor(s)/author(s), may treat AURA's rights to Intellectual Property in one or more of the following ways by:

1. Seeking to license the Intellectual Property for commercial utilization on a royalty-bearing and an exclusive or non-exclusive basis, whichever is best calculated to make the property available for the widest public benefit and use in the quickest way;
2. Marketing the Intellectual Property itself, or through its Centers or subsidiary;
3. Entering into a joint venture with the inventor(s) or third party for the commercialization;
4. Assigning the rights to one or more intellectual property management organizations for protection, commercial development and/or licensing;
5. With the consent of the funding agency, releasing the intellectual property to the inventor(s) if determination is made that commercial exploitation is not warranted;
6. Forwarding the intellectual property to the funding agency if such action is required under the terms of the sponsored project agreement;
7. Taking other steps which would expedite commercialization of the intellectual

property and/or utilization for the public benefit; or,

8. With the consent of the funding agency, placing the intellectual property in the public domain.

AURA Centers have responsibility for implementation of the Intellectual Property Policy through the development and dissemination of procedures for managers/supervisors and other staff.

D. GENERAL POLICY PROVISIONS - AURA AND EMPLOYEES

1. As a condition of employment or use of AURA facilities, all scientific, professional, administrative and technical employees and certain visitors performing scientific or technical work shall agree to execute an AURA Intellectual Property Agreement (Appendix A) and to notify AURA promptly of any intellectual property arising in the course of or in connection with AURA programs and activities.

In the event that the employee or visitor indicates that some prior agreement or condition exists or conflicts with any commitment in the Agreement, the Center Director or a designee will advise that individual to describe that conflict or condition and report it to the AURA Corporate office for resolution.

2. Subject to the terms and conditions of its agreements with funding agencies, AURA shall own all rights in any intellectual property resulting from research and related activities:
 - a. in which all or part of the costs thereof are paid from funds administered by AURA;
 - b. which is made as a result of normal employees duties and responsibilities; or
 - c. which in whole or in part utilized AURA resources.

Where intellectual property results from collaboration between AURA and a third party, and an AURA employee and a third-party employee are co-inventors or co-creators: then, and in that event, AURA and the third party shall mutually agree as to the method of administration, and the division of expenses and revenue of such jointly-owned intellectual property.

NOTE: Special policies with respect to international collaboration may effect and override specific provisions herein.

3. Unless otherwise negotiated the allocation of interests will be made as follows;
 - a. Selection of the desired course of action is predicated upon a timely, comprehensive disclosure of the intellectual property, its ability to be protected, and its commercial utility. If there is commercial promise, a

business and financial strategy is developed by AURA in conjunction with the inventor(s) and the Center Director;

- b. No agreement to assign or license any intellectual property may be entered into by an AURA employee without written consent of the AURA Corporate Office. This provision does not apply to publication of the research results in scientific journals;
- c. AURA shall have the obligation to resolve any conflicts of interest or potential conflicts of interest arising from the management and exploitation of AURA intellectual property;
- d. Written approval of the AURA Corporate Office shall be obtained prior to accepting licenses with respect to intellectual property generated by others; and,
- e. If a dispute should arise between an inventor or creator and AURA with respect to issues under the Intellectual Property Policy, the matter shall be referred for decision to an Arbitrator, the cost of such arbitration to be borne equally by the disputing parties.

E. DISTRIBUTION OF REVENUE

Net income received from the sale, licensing, and/or commercialization of intellectual property shall be shared by the inventor(s) or creator(s), the appropriate AURA Center and AURA. Prior to the distribution of any income, expenses incurred by AURA such as, but not limited to, intellectual property protection, licensing, and management, as applicable, are recovered from gross revenues, resulting in the net income for a specific intellectual property.

It is the responsibility of employees and/or Center Directors to identify individual inventors or creators, if any, during the intellectual property disclosure process. Only (a) individuals named as inventors on the patent application or, (b) creators identified in other intellectual property disclosures and approved by the Center Director will be entitled to revenue sharing.

In the case of certain types of intellectual property, it is not always possible to identify every individual that substantially participated in its creation or development. In such situations, the Center Director, in consultation with the principal investigator will review the circumstances of the development of the intellectual property and make a determination identifying those individuals who properly should participate in any revenue sharing.

The distribution of net income for a specific intellectual property shall be as follows:
33-1/3% distributed among the inventors or creators;
33-1/3% to the AURA Center for use in research, engineering or development;
33-1/3% to AURA Corporate Office in furtherance of its mission, goals and objectives.

APPENDIX A

INVENTIONS AND PROPRIETARY INFORMATION AGREEMENT ASSOCIATION OF UNIVERSITIES FOR RESEARCH IN ASTRONOMY, INC. (AURA)*

I have read, understand, and agree to be bound by the AURA Intellectual Property Policy, effective April 1, 1993, which is incorporated in this Agreement by reference, and as may be amended from time to time; and of which amendments I will be informed. Specifically, in consideration of my present employment at AURA; or my participation in research at AURA; or the opportunities provided to me to make use of AURA facilities with the support of AURA funds, and the opportunities to share in revenue and other privileges as set forth in the AURA Intellectual Property Policy, I shall:

Disclose promptly to AURA any invention, copyrightable material, computer software, or trademark, "Intellectual Property" conceived, invented, authored, or reduced to practice by me, either solely or jointly with others which is developed in the course of, or pursuant to, a sponsored research or other agreement in which I am a participant; or results from the use of AURA funds or facilities (facilities include Government funded or Government owned property); or results from a work-for-hire funded by AURA (work-for-hire is defined as a work product created in the course of the author's employment); and,

Assign to AURA all my right, title and interest to that Intellectual Property, except that I may publish the results of my astronomical research freely and authorize others to do so; and

Execute all necessary papers and otherwise provide proper assistance, at AURA's expense, during and subsequent to the period of my affiliation, to enable AURA to obtain, maintain or enforce for itself or its assignees, patents, copyrights or other legal protection for that Intellectual Property and to carry out its contractual commitments to the Federal Government and the other funding agency with respect to that Intellectual Property; and

Prepare and maintain for AURA adequate and current written records of all such AURA Intellectual Property; and,

Deliver promptly to AURA when I leave AURA for whatever reason, and at any other time as AURA may request, copies of all written records referred to in Paragraph C of this policy as well as all related memoranda, notes, records, schedules, plans or other documents, made by, compiled by, delivered to, or manufactured, used, developed or investigated by AURA, which will at all times be the property of AURA.

This Agreement shall survive the termination of my employment with AURA and shall continue in effect for ten (10) years thereafter. In the event that I am personally unable to carry out any commitment set forth in this Agreement, performance of that commitment shall be an obligation of my executors, administrators or other legal representatives or assignees. This Agreement replaces all previous agreements between me and AURA relating to any form of Intellectual Property and shall be deemed to be in effect as of _____.

AURA Representative

Signature (to include first name in full)

Please print full name

Social Security Number

Date

***Wheresoever used, the term AURA shall be understood to include all operational Centers of this organization, such as, by the way of example only: National Optical Astronomy Observatory (NOAO), Space Telescope Science Institute (STScI), Gemini Project (Gemini), National Solar Observatory (NSO).**

(To be signed in duplicate: DISTRIBUTION: original copy to the signatory's personnel file; second copy to the signatory.)

XII. AVAILABILITY OF INFORMATION

A. POLICY

AURA will provide information about research activities undertaken at AURA operated Centers to all interested parties: scientists, educators, students, authors, publishers, educational filmmakers, the news media and the general public. This policy applies to the availability of information and does not apply to detailed design of hardware that may be susceptible to commercial adaptation. Further, this policy should be read in the light of the AURA policy regarding Intellectual Property.

B. PROCEDURES

FOR ACTIVITIES GOVERNED BY NATIONAL SCIENCE FOUNDATION (NSF) CONTRACTUAL AGREEMENTS INCLUDING (CO-OPERATIVE AGREEMENTS):

1. Public Information Items:

The objective of these procedures is to make public information materials generated by AURA Centers funded by the NSF widely and easily accessible to communications media and the interested public. There are several AURA Centers supporting NSF astronomy initiatives.

Photographs, video features and news clips, and popular publications are available. While publications are copyrighted, images and videotapes are considered to be in the public domain. However, by accepting any product from an AURA Center, the user agrees that the material may not be used to state or imply the endorsement by the Center or AURA, or by any AURA employee, of any individual, philosophy, commercial product, process, or service. The user further agrees that the above statement of non-endorsement accompany each duplicate made of the original material, and that the propagation of this statement is a condition of subsequent duplication. Queries and requests should be directed to the appropriate Center's Public Information Office.

2. Scientific Data

- a. To promote the most efficient and rapid interpretation of results of observing programs carried out with NSF funded telescopes and instrumentation, the data shall be maintained for the exclusive use of the original investigator(s), for the scientific purposes for which a specific observing program was proposed and conducted, for eighteen (18) months following the completion of that observing program. After this proprietary period, which may be shortened at the discretion of the original investigator(s), the data will be made available to other (secondary) investigators, who must submit proposals describing how they plan to use the data;

- b. For data that reside at an AURA Center, such proposals will be subject to review on the basis of scientific merit, and the secondary investigator may be subject to charges for any costs incurred in reproducing and/or transmitting the data. These data will be available "as is," and the AURA Center can make no guarantees concerning the quality, consistency or completeness of the data. The AURA Center management will inform the original investigator of such requests and encourage those who wish to use the data to communicate with the original investigator concerning the details of the data and their suitability for the proposed investigation;
- c. For data that does not reside at an AURA Center, requests should be made directly to the original investigator(s) after the eighteen-month period. The original investigator is encouraged to share the data and to inform the AURA Center's management of the additional utilization or of any difficulties in complying with the request;
- d. Data taken with an instrument for engineering or test purposes may have scientific value. The availability of such data to outside investigators will be considered on a case-by-case basis and is at the discretion of the appropriate Director, to be exercised in a manner consistent with the policy stated herein;
- e. Synoptic data that are taken routinely by any AURA Center are made available without delay, and there are no restrictions on access by qualified investigators;
- f. This statement of data policy does not include policy that may govern any future data archiving programs undertaken by AURA Centers. Such policy will be found in the description of those programs; and,
- g. In all instances, either the principle or collaborating investigators can apply to the Appropriate Center Director for exception to this policy.

3. Engineering Materials

- a. Requests for engineering material, including instrument plans and prints, telescope plans and prints, etc., are subject to review and approval by the Director of the appropriate AURA Center, or a designee. Materials will be made available at cost to qualified individuals with demonstrated need; and,
- b. Single copies of all AURA engineering technical reports will be

provided, upon request to the Center at no cost. Multiple copies are available at cost.

4. Observatory Publications

Facilities manuals, requirements for proposal submission, proposal evaluation procedures and such other documentation and information required to conduct scientific research will be widely disseminated through the Center website.

C. PROCEDURES FOR ACTIVITIES GOVERNED BY NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA) CONTRACTUAL AGREEMENTS:

1. Public Information Items

a. The objective of these procedures is to make Space Telescope Science Institute (STScI) public information materials, generated by and in support of NASA's programs-widely and easily accessible to the communications media and the interested public. There is one AURA Center supporting NASA missions, the Space Telescope Science Institute; and,

b. NASA and STScI generated photographs, videos features, news clips, and popular publications are available from the STScI website. Images and videos are U.S. Government property and no copyright protection is asserted. However, by accepting any NASA or STScI product, the user agrees that the material may not be used to state or imply the endorsement by NASA or STScI of any philosophy, commercial product, process, or service and that the material may not be used in any manner that might mislead. It is requested that if NASA program materials are used in advertising or other commercial promotion, layout and copy be submitted to NASA or STScI prior to release. Queries and requests should be directed to the STScI Office of Public Outreach and/or the NASA website.

2. Scientific Materials

a. Scientific images and data obtained through NASA programs are U.S. Government property but are proprietary to the investigator for 12 months following observation. This proprietary period can be extended under special circumstances by the Director of STScI.

After the proprietary period is over, the images and data are in the public domain and may be accessed through the Multi-Mission Archive at STScI. Images and data will also be released by the STScI Public Affairs Office in support of announcements of

research findings with the concurrence of the PI scientist with proprietary rights and at the end of the proprietary period as circumstances permit;

- b. During the proprietary period, requests for original scientific data should be directed to the scientist who generated the information; and,
- c. Computer programs and manuals to allow users to submit observing proposals and to analyze data are available through the STScI website.

3. Engineering Materials

Access to information regarding telescope and instrument specifications is available through the STScI website.

4. STScI Publications regarding Proposals for Observing Time

HST General Observer proposed manuals, requirements for proposal submission, proposal evaluation procedures, and other information required to apply for HST observing time are available through the STScI Website.

XIII. BUSINESS INSURANCE

A. POLICY

It is the policy of AURA to maintain business insurance as required by prudent business practice and applicable contract provisions for the benefit of its employees, officers, directors, and representatives.

AURA will conduct periodic reviews of business insurance to assure that it provides adequate protection. This review, including dollar limits of coverage and levels of deductibles, should be completed annually by the Audit Committee of the Board of Directors by July 1.

B. PROCEDURES

1. Coverage

As a minimum, AURA maintains the following types of insurance coverage: Commercial General Liability, Automobile Liability, and Workers' Compensation

2. Center Responsibilities

a. Risk Manager

Each Center Director shall appoint an individual responsible for managing risk for that Center;

b. Identification of Insurance Requirements

Each Center is required to provide the AURA Corporate office with a complete list of insurable property and all other necessary information in order to ensure comprehensive coverage. In addition Each Center is to inform the AURA Corporate office of any insurance requirements of their contracts and agreements;

c. Risk and Issues

Each Center is charged with the continuing responsibility of identifying risks and insurance policy issues for review and/or action by AURA; and,

d. Loss Reporting

Each Center is responsible for developing procedures for reporting occurrence within the scope of the insurance coverage.

XIV. EXPORT CONTROL

A. POLICY

1. It is AURA policy that all employees, visitors, grantees, or other individuals utilizing AURA facilities comply with United States export policies and regulations as proscribed by the Department of Commerce's Bureau of Industry and Security (15CFR Parts 730-774), the Department of State's Directorate of Defense Trade Controls (22CFR Parts 120-130), the Department of Treasury's Office of Foreign Assets Control (31CFR Parts 500-598) and any other agency of the federal government regulating exports. Under no circumstances will any individual operating on behalf of AURA be authorized to export materials, technology, data or services contrary to U.S. export regulations.
2. Violations of the export control regulations or licenses issued under those regulations, including conspiracies to violate, are subject to severe criminal and civil penalties by the U.S. government including, but not limited, to those listed in 15CFR764, 22CFR127 and 31CFR501. In addition, violations of this policy will result in appropriate disciplinary actions by AURA with respect to the employment of the individual(s) involved.
3. Questions concerning the export regulations should be directed to the following:
 - a. AURA Import/Export Officer for GEMINI, LSST, NOAO and NSO, Orion Wiest (520) 318-8161 (owiest@aura-astronomy.org)
 - b. AURA Import/Export Officer for the Space Telescope Science Institute, Lynn Kozloski (410) 338-4355 (kozloski@stsci.edu)

Should any AURA employee become aware of violations of U.S. export regulations at any AURA facility, they should report such violations to the appropriate AURA Import/Export Officer, follow the procedures identified in the Whistleblower Policy, report violations to the AURA President, or report directly to the appropriate controlling agency.

XV. CLASSIFIED RESEARCH

A. PREAMBLE

The primary mission of AURA is to establish, operate, and maintain outstanding modern astronomical research centers for use by all qualified astronomers. The freedom to publish the results of research performed at facilities managed by AURA is essential to the performance of this mission. Therefore, AURA has traditionally restricted its mission to unclassified research.

B. RESEARCH POLICY

It is AURA policy that the results of research performed at AURA managed facilities be published in the open scientific literature. Therefore, AURA will not accept contracts or grants for the performance of classified research. In the event that the research is being carried out under a grant or contract becomes classified by the government, that research is terminated, and all data and documents pertaining thereto will be provided to the funding agency.

XVI. LIABILITY DISCLAIMER REGARDING USERS' PROPERTY

A. POLICY

It is possible that loss of or damage to personal property of non-AURA employees may occur while the individual is using AURA's facilities. Such personal property may include equipment, personal papers or records, data stored on photographic plates, on a computer medium, or on other magnetic media. It is administratively and financial impractical for AURA to assure against such losses of non-AURA employees.

Accordingly, AURA disclaims any responsibility for loss of or damage to equipment, supplies, data, records, personal papers, or other personal property of any kind that are owned or brought into or generated or maintained at an AURA site by a user, or any employer of a user, of AURA's facilities. Permission to use AURA's facilities may be granted only upon the user's acknowledgement of this disclaimer and agreement to hold AURA harmless from any liability for such loss or damage.

Center Directors are responsible for administering this policy, appropriately advising users at AURA sites, and obtaining necessary acknowledgements and agreements.

XVII. GUIDELINES FOR INTERNATIONAL MEMBERS

A. POLICY

1. Membership in AURA will be by invitation of the AURA President, in consultation with the Member Representatives.
2. Up to 20% of the total membership may be from non-U.S. institutions.
3. International members will normally serve three-year renewable terms with a nine-year limit. To continue beyond that limit, an international member must reapply for consideration of membership through the process described in the By-Laws. This will allow rotation and thus the opening of slots for new international members as needed for AURA's strategic plans. The AURA President and the Board will have flexibility for considering special circumstances.
4. Chilean institutions will maintain their long-term membership as long as AURA continues to operate facilities in Chile. Chilean institutions do not count against the limit on the fraction of non-US institutions.

XVIII. A Charter for the Operation and Management of AURA's Observatory in Chile

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1. Introduction.

This new Charter defines the authority and role of the AURA Observatory in Chile. The services, functions, and legal responsibilities of site operations that were formerly the responsibility of the AURA Observatory Support Services (AOSS) unit have been assigned to NOAO within the context of the AURA cooperative agreement with the NSF for the management of NOAO.

There are several AURA business Units within its Observatory in Chile (and from time to time certain scientific collaborations and other guest programs involving non-AURA participants also operate on AURA's property in Chile). These various programs all operate under the umbrella of AURA's unique Chilean juridical regime and therefore benefit from AURA's status in Chile. These benefits carry corresponding responsibilities: (i) that AURA has to the Chilean authorities and (ii) that the business Units have to AURA; these are discussed in more detail in sections 1.2 and 1.3.

Note: An AURA Unit shall be defined as a Program or project resident in the AURA Observatory in Chile that:

- 1. Requires a telescope aperture of not less than 2.5 meters and that***
- 2. AURA directly operates (NOAO/CTIO and Gemini), or in which***
- 3. AURA has a significant management or governance role (SOAR). This role would include AURA membership on a Project or program's Board and a direct intellectual or scientific role in the Project***

1.1 AURA-O Management.

1.1.1 Head of Mission:

AURA-O shall be headed by a "Head of Mission" appointed by the AURA President for a term of up to three (3) years, renewable by the President. The Head of Mission shall be the primary representative of AURA in Chile including all Units operating or wishing to operate under the auspices of AURA in Chile and/or on AURA property in Chile. He/she shall be the sole point of contact with all Chilean governmental authorities, the Union and all Chilean institutions. The Head of Mission is responsible for all diplomatic matters relating to the operation of AURA in Chile and shall be responsible and accountable for carrying out the mission and activities set forth herein for AURA-O. The Head of Mission will endeavor to maintain the Programs informed of important interactions with Chilean governmental authorities, the Union and all Chilean institutions.

The AURA Santiago Office and personnel of this office are part of the AURA-O infrastructure, acting on behalf of AURA and reporting to the Head of Mission in support of the AURA-O mission in Chile.

AURA has delegated certain legal responsibilities to NOAO, including but not limited to purchasing, contracts, personnel, payroll, and other such functions as AURA deems necessary for carrying out the functions of the programs in Chile under its juridical auspices.

1.1.2 Local Directors Committee:

A Local Directors Committee is composed of the local directors of CTIO, SOAR, and Gemini (and any new "Unit", such as LSST, meeting the requirements described

above), together with the CTIO Administrative and Facilities manager. The committee will be chaired by the Head of Mission and meet monthly, or at the call of the Chair. The committee will discuss AURA operational and strategic issues affecting all Programs operating within the AURA Observatory. In addressing these issues, the Committee will provide for a forum for planning, consensus building, and decision making that will encourage uniform treatment and co-operation among and between Programs within the AURA Observatory.

1.1.2.1 Annual Directors Meeting:

In September of each year, the Local Directors will meet with the respective program "Unit" Directors (currently NOAO, SOAR, Gemini, and LSST) to discuss operational, infrastructure, and planning issues affecting the AURA Observatory, and its observatory-wide support service function provided by NOAO on behalf of AURA-O. It is expected that at this annual meeting, the "Unit" Directors will reach agreement on general issues and priorities affecting the operation of AURA Observatory support service functions.

1.1.3 AURA-O Users Meeting:

Representatives from each Unit, as well as other "tenants" within the AURA Observatory such as SMARTS, may also participate in the AURA-O Users' Meeting. They will meet annually (normally in the July-September timeframe) and will evaluate and suggest initiatives concerning the existing or future service demands of the Users' community at large. This activity will include AURA-O wide functions involving houses, the campus, meal service, transportation, etc. Results from the Users' Meeting will be advisory in nature. It is expected that the Users will recommend or promote actions, including infrastructure improvements. These recommendations will be reviewed by the Local Directors Committee and the Head of Mission for prioritization. The Head of Mission will forward these prioritized recommendations to NOAO for implementation.

1.1.4 Resolution of Disputes:

When disputes arise between business Units, including, but not limited to, interpretation of regulations or jurisdiction, that cannot be resolved at a staff level, the responsible party for any Program or business Unit may request a review at an expedited meeting of the Local Directors Committee. In this context, the AURA-O Head of Mission will seek to achieve a satisfactory resolution of the issue. If a resolution is not forthcoming, the responsible party may request a review by the **President of AURA, who is the final authority on all dispute resolutions.**

1.2 Operating Principles of AURA-O in Chile.

AURA has set out the following principles for operation of its Observatory in Chile:

1.2.1 Mission and Responsibilities:

- a. The primary mission is to advance science. The AURA-O Head of Mission provides leadership in observatory-wide matters and is responsible for observatory-wide concerns including safety and general site coordination.

- b. NOAO is responsible for site operations supporting all Programs, and is responsible for managing the resources that are involved in site operations.
- c. The Local Directors of the individual Programs are responsible for operations and implementing safety policies and procedures within their respective areas, generally taken to be “within the dome”.
- d. AURA-O promotes resource sharing among Units in their mutual interests to enhance productivity and ensure that science operations are conducted as efficiently and cost-effectively as possible. “General Principles for Resource Sharing”, as set out in 1.2.2, are incorporated herein.
- e. AURA-O will support all Units on site in an equitable and fair manner in all observatory-wide matters and in the allocation of shared AURA-O resources, which specifically include housing, rental automobiles, and other shared assets that AURA deems may be beneficial to Programs, but are not included in fundamental site operations.
- f. Pursuant to 1.3 below, the AURA Observatory is the primary representative in Chile for AURA and all Units operating or wishing to operate on its property. AURA-O is the sole channel for all Units in all official dealings with Chilean authorities, with the Union, and with Chilean institutions. The Head of Mission is responsible for the stewardship of all AURA resources and property in Chile.
- g. The AURA-O Head of Mission allocates all AURA-O resources such as housing units, automobiles, etc. and coordinates other support to Units and individuals without bias for or against any Unit or employees of any Unit. If the Head of Mission is also the Director of one of the Units, she or he may allocate resources to his or her own Unit with appropriate co-ordination with the local Directors of the other Units.

1.2.2 General Principles for Resource Sharing:

- a. AURA property in Chile represents a unique and important resource. No functional or physical change may be undertaken without a thorough consultation with all Units and a clear effort to assess the impacts both short and long term on existing Units and future Units. The AURA-O Head of Mission is responsible for promoting this consultative process with the Local Directors and for informing the President of all functional and physical changes envisioned. Each Unit Director is responsible for communicating, on a regular and timely basis, Unit needs and potential functional and physical changes that may be proposed in the future.
- b. NOAO, on behalf of AURA, will execute agreements for the provision of sites and services with all tenants of the AURA property and/or users of AURA-O services.
- c. Sharing resources must be genuinely beneficial to each Unit of AURA-O.
- d. Risks must be shared by the Units in proportion to the benefits.
- e. Sharing resources must do no harm to any of the Units of AURA-O.
- f. Each Unit of AURA-O must retain control of its vital programmatic, legal and contractual interests, within the limitations imposed by AURA’s juridical role in Chile.
- g. Interests of third parties involved with the Units must be protected.
- h. Labor and facilities being shared at AURA-O must be accounted for and tracked so that the Units and AURA-O can assure their individual goals and legal requirements are met, interests of third parties respected and normal legal issues (e.g. institutional responsibility and liability) are resolved.

- i. While meeting the above requirements, the implementation of these principles must be as simple as possible so as to minimize the administrative burden on AURA-O staff (including those of the Units of AURA-O).
- i. The AURA-O Head of Mission may delegate AURA-O functions (eg. Safety) to individuals from any AURA “Unit” as defined above. Such individuals responsible for the function delegated will report to the “Head of Mission” on issues regarding that activity.

1.3 The Legal Status of AURA in Chile.

This section provides background to operating principle 1.2.1 (d).

AURA, Inc. started to operate in Chile in 1960-1961, as the result of a scientific cooperative agreement signed between the President of AURA and the Rector of the University of Chile. The following three-and-a-half decades of legal history behind AURA's current status - as an accredited International Organization in Chile – are reviewed in Appendix 1.

As a result, AURA has the juridical capacity to act in Chile in pursuit of its recognized objectives under the safeguard of international law, and can enter into agreements with other institutions or public organizations in order to fulfill its declared scientific mission. Included in AURA's objectives is the operation of AURA's Observatory (AURA-O) in Chile for the benefit of US and international astronomy.

AURA's legal regime imposes certain Chilean requirements with which all Programs at AURA's Observatory must comply. It is AURA's responsibility to meet these requirements. AURA therefore has final authority to interpret these requirements and assure compliance by all the Units and Programs on the AURA property.

AURA has charged the Head of Mission, with the responsibility to support, monitor, and ensure compliance by all business Units and Programs on the AURA Observatory property. AURA-O will assist each group in understanding the juridical requirements as they apply to the activities of that group. It will review and provide advice on compliance options. In extreme cases it may take such actions as may be necessary to enforce compliance, subject to oversight and dispute resolution procedures provided herein. However, within the framework of acceptable legal options, as interpreted by AURA, the various Units have sole discretion to implement their missions as they see fit in the best interests of their respective Programs.

1.4 Other Basic AURA-O Considerations

- a.** Though there may be some exceptions, generally the AURA property consists of three types of areas: 1) undeveloped land, 2) areas and facilities used in common by more than one Program (e.g. multiple-use offices, dormitories, cafeterias, warehouses, utility plants, roads, etc.), 3) areas and facilities dedicated to the exclusive use of one Program (e.g. "inside the dome", dedicated service buildings, staging areas, etc.) Normally, AURA-O will have direct day-to-day responsibility for managing the undeveloped and common-use areas. The individual Programs will be responsible for the day-to-day management of their respective exclusive-use areas, subject to reasonable juridical-compliance oversight by AURA-O. In all cases, however, the actual use of AURA land shall be in conformance with the provisions of 1.2.2 noted above.
- b.** For juridical purposes AURA must continue to be the one unique legal entity in Chile. Users of AURA services in Chile, must adopt the norms and legal guidelines originating from AURA's legal condition. This requisite will have to be expressly entered into the language of their corresponding agreements with AURA.
- c.** Personnel contracted in Chile for AURA-managed Units can only be hired by AURA (there is no other juridical entity that can legally assume this function for these AURA-managed projects). Therefore, personnel management policies will have to adhere to general, basic principles (e.g. pay rates), in order to offer equal opportunities to all of our local employees across the organization, obtain mutually beneficial affiliation contracts with labor related organizations, etc.
- d.** The "Head of Mission" will be responsible for carrying out these negotiations on behalf of AURA-O and its business Units, using advice and co-operation from representatives of these User Units. Note that many Union matters are beyond AURA-O' legal control, as the Law allows employees to freely join the Union Association(s) of their choice, stay out of them, or start new ones.
- e.** Because of its juridical regime – and especially because AURA has been recognized by the Chilean Government as an International Organization, AURA will have the exclusive right and responsibility of representing all the Units in Chile under its juridical umbrella, with the purpose of extending to them the use of the special legal faculties, prerogatives and exemptions granted to AURA by the Government of Chile.

1.5 Safety

AURA-O is committed to preserving the workplace safety and health of its workers and visitors, and the integrity and quality of its physical property and assets, in accordance with the principles and mandates of the Chilean Accident Prevention and Occupational Health Law, the environmental protection laws, appropriate United States OSHA mandates, and best practices of the industry.

Chilean Law, No. 16.744, also mandates the establishment of one or more Comités Paritarios de Higiene y Seguridad (Health & Safety Committees) in any company of 25 or more employees. In accordance with the Law, AURA-O maintains three Safety Committees, one in La Serena, one on Cerro Tololo and one on Cerro Pachón.

AURA-O is committed to the preservation of the natural environment under its custody, and to keeping it free of contaminants or pollution, as well as to the preservation of the natural life, bio-diversity, historical and other environmental assets under its jurisdiction.

In accordance with AURA's juridical status and the Chilean Civil Law, the legal responsibility for safety and environmental issues on the AURA Observatory rests solely with AURA, executed through the faculties of representation granted to its legal Representative. Each Program is responsible for complying with the fundamental safety policies and procedures defined by AURA-O. Every Program, however, is encouraged to devote whatever resources it deems appropriate to enhance workplace safety for their workers within their respective facilities above and beyond the minimum standards set by AURA-O policies and procedures. That effort should be undertaken in the context of the following framework:

- a. The Head of Mission appoints an AURA-O Safety Officer who must be licensed and approved by the Chilean Government. The AURA-O Safety Officer shall report directly to the Head of Mission.
- b. The AURA-O Safety Officer serves as the primary representative for AURA in all safety matters dealing with the Administrator Agency of Law 16.744.
- c. The AURA-O Safety Officer has the responsibility for establishing fundamental AURA-O safety policies and procedures that interpret and enforce compliance with the appropriate Chilean and U.S. safety and risk management laws and best practices for all persons and activities acting under the auspices of AURA-O and/or on AURA property in Chile. The AURA-O Safety Officer is also responsible for enforcement of said safety policies and procedures.
- d. Each Program should appoint a "key" safety representative who will be the sole point of contact with the AURA-O Safety Officer in all matters related to that Program's safety program, including that Program's implementation of AURA-O safety policies and procedures.

Safety issues and/or disputes shall be adjudicated by the Head of Mission.

2. Appendix 1

A More Detailed History Concerning AURA's Legal Status in Chile

In February 1963, the Chamber of Deputies of the Chilean Congress (Cámara de Diputados) voted in legislation that gave AURA, the legal right to import, free of duty, all property and equipment, goods etc. under the Agreement with the University of Chile (Official Gazette of 07-MAR-1963). This law mandated that all imports for CTIO had to be certified true and accurate by officials from the Universidad de Chile, appointed by the Rector to act on behalf of the University.

Also, almost at the same time (1963), AURA signed the statutes and started to operate in Chile under the guise of a "Sociedad Anónima" -a sort of agency of a foreign commercial corporation- obtaining juridical personality and tax registration to formally start business.

This condition actually implied that AURA was subject to Chilean commercial legislation, and that AURA was therefore compelled to follow existing Chilean trade norms as well as standard Chilean business practices - i.e. AURA would have to pay taxes and corresponding legal fees for its operations, keep accounting books, declare property, assets and liabilities under an approved bookkeeping system, issue year-end financial statements and balances. Furthermore, AURA was subject to full civil and penal responsibilities for any irregularities in its official activities performed in Chile.

By Article 11 of Law No 15.182 of Sept. 9, 1969, the Government of Chile granted AURA the same privileges and guarantees previously accorded to the European Southern Observatory in January 1964. This Law was essentially the same that had given birth and juridical personality to the Commission Económica para la America Latina (CEPAL) -a subsidiary agency of the United Nations. The Law explicitly applies to AURA the provisions of the United Nations Convention, the basis of the privileges and immunities given to specialized UN agencies. In effect, this law recognized AURA as an International Organization, giving it the same International Juridical Personality accorded by the Government to ESO (and formerly to CEPAL). AURA acquired, through the language of this act, the capacity to operate in Chile under that name, contract, acquire and dispose of immovable and movable property and institute legal proceedings. In addition, the Law granted AURA's property and assets title of complete immunity from any form of legal process except those waived by the immunity clause of the agreement. It also granted AURA the right to own property, hold and transfer funds or currency of any kind without legal restriction, financial barriers or moratoria of any kind, exemption from direct taxes, exemption from customs duties and prohibitions and restrictions on imports and exports for articles for its official use.

By mandate of this law, the representative members of AURA were also accorded similar privileges of immunity and facilities for themselves and their family members.

In 1970, the Government of Chile enacted Article No 48 of the Law No 17.318 that further refined the preceding law by including other organizations, or juridical persons entering the country for the construction, installation, maintenance and operation of astrophysical observatories that are installed in Chile as a result of agreements with Universidad de Chile.

For a short period of time AURA continued to operate with both legal names -i.e. under the commercial patent as well as under the International Organization status accorded by the

agreement between the Government of Chile and AURA. The commercial patent was cancelled in August 21, 1973, when the permit for AURA to operate as an agency of a foreign corporation was revoked, thus ending the confusing double juridical condition involving the organization since 1963.

An official letter of clarification was received by AURA in response to specific questions made by AURA in Nov. 1985. These questions concerned the legal grounds for starting project associations with local universities for developing joint research programs, and essentially for the import of property for these organizations under the duty exemption grant of AURA. This letter officially acknowledged that, from a juridical perspective, "AURA had the legal right to form alliances with local or foreign partners to further pursue its fundamental objectives in science research, and kept the right to extend the privileges of its legal status over to these alliances, operating under their name and responsibility..."

3. Appendix 2

Origin of the Exemption of the Observatories in Chile from Value-added tax

On November 6, 1963, the Government of Chile signed an international treaty with the European Organization for Astronomical Research in the Southern Hemisphere (ESO) for the establishment of an observatory in Chile. That treaty was promulgated by means of supreme decree N°18 of January 4, 1964 of the Ministry of Foreign Affairs, and published in the Diario Oficial N°25.808 of April 4 of the same year.

By means of this treaty, the Government of Chile grants to ESO the same immunities, prerogatives and facilities as those granted to the Economic Commission for Latin America (CEPAL), in accordance with a treaty signed in Santiago on February 16, 1953.

The treaty between the Government of Chile and ESO stipulates “ it will be interpreted in accordance with its fundamental objective of making it possible for ESO to fully and efficiently execute its functions and fulfill its purposes”.

Within the legal context of the treaty referred to in the previous paragraph, the Government of Chile issued Decree N°2.940 (October 26, 1965) of the Ministry of Finance, specifying the tax exemptions that would be granted to ESO, and that were considered necessary for the full and efficient execution of ESO’s functions and the fulfillment of its purposes. These exemptions were the following:

- a) Exemption from income tax and from land tax for the real estate property of ESO;
- b) Exemption from tax on purchase and sale of materials, purchased for the construction of the offices and branches in Vitacura Park, Las Condes, and the Observatory La Silla, its offices and branches in the Province of Coquimbo, as well as for furniture, machines and other goods purchased for the purpose of equipping and furnishing the above constructions.
- c) Exemption from the tax on the annual transactions volume for rendering services to ESO in relation to the above mentioned constructions.
- d) Exemption from the tax on Stamps, Seals and Official Stamped Papers for contracts signed for the projected work and that affect the referred constructions.

To clarify the interpretation of Decree 2.940 regarding the moment from which the exemption from the tax on purchase and sale and the tax on the annual transactions volume - currently called Value Added Tax - became valid, on February 23, 1966, Impuestos Internos issued Supplement 7-7 to the Service Manual. This document states that, given its character, the exemption should be there in principle and should only be withheld if the Organization so indicates in the Purchase Order. This way, Impuestos Internos granted to ESO the faculty of indicating in its Purchase Orders the origin of the exemption. The exemption was applied following this criterion, and this way ESO indicated each time when they wanted to apply the exemption from VAT for the purchases realized.

In relation to the exemption from VAT, the following was considered:

- a) That the observatory is an establishment in a situation of permanent development and construction;
- b) It should be realized that the purchase of instruments, equipment, furniture, machines and other goods is for an observatory, so that the expression “equipment and furnishing” has a different meaning than equipment and furnishing of other kinds of constructions, and therefore this activity should be interpreted with a wider criterion.

The exemptions to the ESO (La Silla Observatory) were granted to AURA under the same conditions, in virtue of Law N°17.182 of September 9, 1969, article 11, and Law N°17.318 of August 1, 1970, article 48, which establish that: “the Association of Universities for Research in Astronomy (AURA) and other foreign organizations, entities or persons with legal personality as well as the scientists, astronomers, teachers, engineers, technicians and employees belonging thereto, who enter the country for reasons related to the construction, installation, maintenance and operation of the astrophysical observatories installed in Chile according to agreement with the University of Chile, will be subject to the same regime and will be granted the same prerogatives and facilities as the ones established by the treaty of November 6, 1963, between the Government of Chile and the ESO.”

In May 1984, taking into account - the need for rules to cover the adequate fulfillment and full application of the agreement between the Republic of Chile and the ESO; - the need to support the scientific activities of the ESO in accordance with the spirit and the text of the referred agreement; and - the difficulties of a practical nature that arose when applying Decree N°2.940 of October 26, 1965 of the Ministry of Finance, and therefore, the need to clarify and to adjust it to the legislation in force; by means of Decree N°455 of May 25, 1984, modifications were introduced to permit recovery of the tax established in title II of decree-law N°825 of 1974, whether it had been applied to the purchase of goods or to the use of services destined to the construction, equipment and furnishing of its offices and branches in general.

Taking into account the above and after a number of difficulties for the Cerro Tololo observatory in obtaining the exemption from the Value Added Tax, on April 25, 1985, the management of the observatory sent a letter to the Minister of Finance, Mr. Hernán Büchi, asking for the promulgation of a decree that clearly established the way of regaining the VAT, given the difficulties and the lack of a legal pronouncement to make this exemption effective.

This note originated Decree N°560 of June 18, 1985, which established the procedures and the way to recover the Value Added Tax modifying therewith Decree N°56, of January 2, 1970.

XIX. AURA Policy Governing Responsible Conduct of Research

A. Introduction

Ethical and responsible conduct of research is essential in promoting excellence and in establishing public trust in science and engineering. AURA is committed to foster and promote ethical decision making and professionalism, and requires that everyone engaged in research at AURA Centers understands and abides by appropriate principles in conducting research.

Integrity in research requires commitment to the accuracy of published works, fairness in recognizing and citing the accomplishments of others, conferring of co-authorship on those who have made substantial contributions to the research, the ability and willingness of authors to defend publicly their published results, and impartial review of manuscripts.

AURA has a responsibility to create and sustain an atmosphere where honesty and integrity are paramount in research conduct. As a recipient of federal funding, AURA also has an obligation to comply with all appropriate legislative requirements. All staff members and associated personnel conducting research at AURA Centers, including postdoctoral fellows, graduate and undergraduate students, are expected to maintain the ethical standards described in this policy.

B. Guidelines for professional conduct

The American Physical Society has issued ethical guidelines for its members (http://www.aps.org/policy/statements/02_2.cfm). Those guidelines have also been adopted by the American Astronomical Society. AURA endorses those guidelines, which are reproduced in this section:

Each research scientist is a citizen of the community of science. Each shares responsibility for the welfare of this community. Science is best advanced when there is mutual trust, based upon honest behavior, throughout the community. Acts of deception, or any other acts that deliberately compromise the advancement of science, are unacceptable. Honesty must be regarded as the cornerstone of ethics in science. Professional integrity in the formulation, conduct, and reporting of physics activities reflects not only on the reputations of individual scientists and their organizations, but also on the image and credibility of the profession as perceived by scientific colleagues, government and the public. It is important that the tradition of ethical behavior be carefully maintained and transmitted with enthusiasm to future generations.

The following are the minimal standards of ethical behavior relating to several critical aspects of the physics profession. Scientists have an individual and a collective responsibility to ensure that there is no compromise with these guidelines.

Research Results

The results of research should be recorded and maintained in a form that allows analysis and review. Research data should be immediately available to scientific collaborators. Following publication, the data should be retained for a reasonable period in order to be available promptly and completely to responsible scientists. Exceptions may be appropriate in certain circumstances in order to preserve privacy, to assure patent protection, or for similar reasons.

Fabrication of data or selective reporting of data with the intent to mislead or deceive is an egregious departure from the expected norms of scientific conduct, as is the theft of data or research results from others.

It should be recognized that honest error is an integral part of the scientific enterprise. It is not unethical to be wrong, provided that errors are promptly acknowledged and corrected when they are detected.

Publication and Authorship Practices

Authorship should be limited to those who have made a significant contribution to the concept, design, execution or interpretation of the research study. All those who have made significant contributions should be offered the opportunity to be listed as authors. Other individuals who have contributed to the study should be acknowledged, but not identified as authors. The sources of financial support for the project should be disclosed.

Plagiarism constitutes unethical scientific behavior and is never acceptable. Proper acknowledgement of the work of others used in a research project must always be given. Further, it is the obligation of each author to provide prompt retractions or corrections of errors in published works.

Both authors and reviewers should ensure that appropriate credit is given to prior work, through fair referencing and citations.

Peer Review

Peer review provides advice concerning research proposals, the publication of research results and career advancement of colleagues. It is an essential component of the scientific process.

Peer review can serve its intended function only if the members of the scientific community are prepared to provide thorough, fair and objective evaluations based on requisite expertise. Although peer review can be difficult and time-consuming, scientists have an obligation to participate in the process.

Privileged information or ideas that are obtained through peer review must be kept confidential and not used for competitive gain.

Reviewers should disclose conflicts of interest resulting from direct competitive, collaborative, or other relationships with any of the authors, and avoid cases in which such conflicts preclude an objective evaluation.

Conflict of Interest

There are many professional activities of physicists that have the potential for a conflict of interest. Any professional relationship or action that may result in a conflict of interest must be fully disclosed. When objectivity and effectiveness cannot be maintained, the activity should be avoided or discontinued.

C. Training

AURA Centers must ensure that appropriate training in responsible research conduct is provided for all staff members and associated personnel, including postdoctoral fellows, graduate and undergraduate students. AURA will assist in coordinating the training programs. The training must address the following topics:

- Responsible conduct of research
- Responsible mentoring and supervision
- Data acquisition and management
- Responsible authorship
- Peer review
- Conflicts of interest
- Identification of and appropriate response to research misconduct

The training sessions will be conducted during the first year of employment, and thereafter on a timescale consistent with the appropriate requirements for federally funded research. AURA Centers will be required to show certification for participating staff. The certification shall be recorded in the personnel file and made available as appropriate.

D. Research misconduct

Reporting research misconduct is a responsibility of all AURA employees.

AURA shall develop guidelines on the appropriate procedures to deal with reported misconduct. Those guidelines will be consistent with the Federal Policy on Research Misconduct (<http://ori.hhs.gov/education/products/RCRintro/c02/b1c2.html>) and with existing AURA policies, and will serve as the basis for implementation procedures

developed at each AURA Center. Those procedures must provide due notice of the complaint to the respondent(s); safeguard the rights of complainant(s) and respondent(s); preserve confidentiality to the maximum extent possible; ensure preservation and, if necessary, sequestration of appropriate research records; provide impartial review of the allegation by a suitable investigative body; and allow suitable recourse to appeal for the respondent(s). The AURA Center Director will identify a senior member of his/her staff as the center's Research Integrity Officer (RIO). The AURA Center RIO will be responsible for oversight of the procedures, including informing the appropriate federal authorities of any allegations of misconduct, and for providing a final report to the AURA Center Director and to the AURA President.

AURA employees shall cooperate in the review of allegations and the conduct of inquiries and investigations, including providing relevant materials. AURA and AURA Centers will monitor the treatment of individual(s) who bring allegations of misconduct or of inadequate institutional response thereto, of those who cooperate in inquiries or investigations and of the respondent. The AURA Center RIO, working in conjunction with the Human Resources department, will ensure that no retaliatory actions are taken against those personnel, and will review instances of alleged retaliation. Any apparent cases of retaliation will be dealt with following AURA Whistleblower Policy. Frivolous, mischievous or malicious misrepresentation in alleging misconduct will not be tolerated, and AURA will ensure that employees subject to misrepresented allegations receive full support. AURA employees misrepresenting research misconduct may be subject to administrative action.

If an inquiry results in a finding of misconduct, which is not reversed on appeal, AURA administrative action may be taken. Depending on the seriousness of the misconduct, that action may include:

- a) Removal from a particular project
- b) Monitoring of future work
- c) Letter of reprimand
- d) Salary reduction
- e) Initiation of steps leading to possible rank reduction
- f) Withdrawal of publications related to the research project
- g) Probation
- h) Suspension
- i) Termination

Procedures for imposing sanctions and the appropriate sanctions shall be governed by existing AURA and AURA Center policies (<http://www.aura-astronomy.org/about/policies/Section%20B/Section%20B%20Complete.pdf>), including those regarding grievances and/or termination.

Any penalties that may be imposed by federal authorities and/or external funding agencies shall be deemed separate from any imposed by AURA.