

NRAO Performance Review Committees: Process and Procedures

January 2010

1. Introduction

The NRAO Performance Review Committees were created to evaluate NRAO research staff and to make recommendations on career actions (promotions, tenure, and continuing appointments). These Committees strive to uphold uniform and high standards of excellence among the scientific staff across the Observatory. This guide provides documentation on the process and procedures to be used by the members of the Performance Review Committees (PRCs) to implement NRAO Scientific Staff Policy¹.

2. Membership

Five PRCs are used to review the performance of, and to make recommendations pertaining to, NRAO research staff that follow one of two distinct career tracks, Astronomer and Scientist. The PRC chairs and members are appointed by the Director upon the recommendation of the Assistant Director (AD) of the Office for Science and Academic Affairs (OSAA). Committee members are drawn from staff on the Astronomer or Scientist tracks that have a Tenure Appointment or a Continuing Appointment with due regard to distribution of expertise and geographical location. Committee members nominally serve three-year terms. Neither the Director nor the OSAA AD can be Committee members. The PRCs are constituted as follows:

The *Astronomer Performance Review Committee* (APRC) is charged with making recommendations for appointments and promotions of staff with term appointments on the Astronomer track, including Tenure Appointments. The Chair and members of the APRC are Astronomers with a Tenure Appointment.

The *Scientist Performance Review Committees* (SPRCs), of which there are three, are charged with making recommendations for staff on the Scientist track in the areas of Astronomy (A), Computational Science (CS), and Research Engineering (RE). The Chair of each SPRC is an Astronomer or Scientist with a Tenure Appointment. Members of each SPRC are Astronomers or Scientists with a Tenure or Continuing Appointment.

The *Scientist Tenure Performance Committee* (STPC) is charged with making recommendations regarding those Scientists that have a Continuing Appointment for a Tenure appointment. The Chair and the members of the STPC are Astronomers and Scientists with a Tenure Appointment.

3. Operating Process and Requirements

3.1 Confidentiality, Fairness, and Communication

In order for the PRCs to function effectively, it is necessary to have complete confidentiality of all Committee discussions. Extra care should be taken to ensure that all material used by a Committee is secured during periods of evaluation. Observatory computer security personnel will advise and assist in the installation and configuration of the software necessary to secure electronic documents. Paper documents should be filed discreetly in Committee members' offices. Material used during an evaluation should be destroyed when no longer required. The identity of external referees must be protected to the maximum extent possible. It is the responsibility of the PRC Chairs to ensure that Committee discussions and materials remain confidential.

Career advancement for astronomer/scientific staff at NRAO is meant to be a merit-based system that is open, fair, and transparent, with consistent evaluation criteria. The Committees should endeavor to give full and fair evaluations of the strengths and weakness of each candidate, and try to identify areas of improvement.

The identity of PRC members is public. However, only the Chair, the OSAA AD, and the Director are authorized to discuss Committee matters outside of Committee meetings. It is never appropriate or permitted for Committee members to discuss Committee business with non-Committee members unless authorized by the Committee Chair, the OSAA AD, or the Director.

3.2 Meetings

Meetings will be called and led by the Chair of each Committee. The frequency and duration of meetings is at the discretion of the Chair but they should be sufficient to complete the annual responsibilities of the Committee. If a chairman cannot attend a particular meeting, he/she may nominate a Deputy to oversee the meeting in their absence. Meetings will normally be held via video- or teleconference. E-mail communications between the Chair and the members may be essential for some Committees, and is not discouraged. However, confidentiality of these messages must be ensured in the same manner as described in §3.1.

A quorum is required in order for the Committee to make a career action recommendation. At least half of the Committee must be present to achieve a quorum. At the Chair's discretion members who cannot be present at a meeting may vote by proxy. The Committees are encouraged to develop recommendations by consensus whenever possible, with the Chair declaring an apparent consensus and giving opposing members an opportunity to object. When a vote becomes necessary only the tally of votes will be recorded by the Chair.

The Chair is responsible for ensuring that potential or perceived conflicts of interest between any Committee member, and any candidate under consideration for advancement, do not adversely impact the Committee's deliberations, or the staff's view of the Committee's impartiality. For minor conflicts (e.g., close working relationship) the member may participate in Committee discussion of said candidate but may choose not to vote if an unbiased opinion cannot be given. For major conflicts (e.g., familial relationship) the Committee member shall neither receive

material nor participate in any discussions of the candidate. If there is uncertainty of whether a conflict exists, the Chair of the Committee will make the final determination. The reason for the conflict shall be recorded.

3.3 Committee Business and Administrative Support

Committee business is normally to be conducted during September through June, with possible exceptions for reviews for Tenure Appointments and Continuing Appointments; nominally, results of the reviews should be apparent by the start of the next annual Personnel Evaluation Process (PEP)². In the course of its normal annual activities, a Committee will review all scientific staff within its purview and produce a short report with recommendations for each staff member to the OSAA AD. In cases of a review for a promotion, a Continuing Appointment, or a Tenure Appointment, a more detailed report shall be produced by the Committee.

A candidate is normally considered for promotion on a triennial basis. The Chair of the relevant SPRC will request the candidate's CV, bibliography, a summary of research and functional activities since the previous review. The candidate's most recent self-evaluation and PEP will also be made available to the relevant SPRC no later than May 15 (Appendix D).

A candidate that is being considered for a Tenure appointment by the STPC or a Continuing Appointment by the relevant SPRC shall not be made aware of the consideration for review until after the Committee Chair, the OSAA AD, and the Director concur that the review proceed. APRC tenure candidates will be aware of the plans for their review due to the timeline of their appointment. Candidates for a Continuing Appointment or a Tenure Appointment will be asked by the relevant Committee to contribute materials at the appropriate time (see Appendix A.1 and A.2) for the review process.

Procedures and evaluation criteria are provided in later sections of this document. On occasion, a Committee may also be asked to provide recommendations on the appropriate career level for new appointments to the scientific staff.

Administrative and clerical support to the Committees is available from the OSAA. To aid the PRCs in their efforts, the OSAA will maintain and track the promotion schedules for each member of the Astronomer/Scientific staff in the form of a "Promotions Calendar." The OSAA will identify when scientific staff members are to be considered for a standard 3-year review; a review recommended via the Committee or promised in an offer letter; a promotion or Tenure/Continuing Appointment review; and will relay this information to the Committee Chairs. Any staff member can be added to the Calendar by direct request (e.g. a request for an early tenure decision), or indirectly through the recommendation of supervisor via the Director's Office (i.e. rather than lose a key employee). However, adding a name to the Calendar is not a recommendation for promotion. Only the appropriate Committee can make such a recommendation. Both direct and indirect requests to add a candidate to the promotions calendar must be approved by the Director in consultation with the OSAA AD and the candidate's functional supervisor. An annual meeting of the Director, the OSAA AD, and the Committee Chairs will be held at the beginning of each September to discuss the status of recent or on-going reviews, upcoming reviews, and to determine the specific tasks and expectations of each PRC for the upcoming review process.

4. Promotion Procedures

Promotion from an Assistant to an Associate level in both tracks (Scientist and Astronomer) does not require approval from Associated Universities, Inc. (AUI). Likewise, AUI approval is not required for promotion from Associate Scientist to Scientist or from Associate Astronomer (with Tenure) to Astronomer. The procedural guidelines developed and found in the *Scientific Staff Policy* (SSP) manual are sufficient and are largely paraphrased below.

4.1 Reviews for Promotion

APRC (*SSP Manual Section IV-7, p. 8*): The APRC shall provide a detailed recommendation for each promotion of members of the Astronomer track as appropriate, including the promotion from Associate Astronomer to Astronomer after Tenure. A review for promotion normally occurs on a triennial basis. The OSAA AD and the astronomer's functional supervisor will provide input to the APRC for use in developing each recommendation for promotion. This recommendation will include an assessment of the individual's research accomplishments, functional achievements, professional activities, and leadership. Evaluation guidelines are provided in §5.1 The APRC report and recommendation for each Astronomer will be forwarded to the Director through the OSAA AD each year by **July 1²**. The final decision on each promotion will be made by the Director. The OSAA AD and the functional supervisor will meet with the candidate to discuss the decision and to provide feedback and counsel regarding continuing professional development.

In years between promotion recommendations, the APRC will provide a brief report on the progress of each Assistant or Associate Astronomer to the OSAA AD who will then forward the information to the functional supervisor for use in the annual review process, and to the Director if so requested. The OSAA AD shall also use these reports and recommendations to counsel each Assistant or Associate Astronomer on their progress toward their next promotion during the annual Research Appraisal process, and at other times as necessary.

SPRCs (*SSP Manual Section V-3, p.12*): Each SPRC will consider members of the Scientist track under its purview holding an Indefinite or Project Appointment for recommendation for promotion. In-depth reviews are normally held on a triennial basis. Promotions are made by the Director after approval of recommendations from the SPRC. If an SPRC wishes to make a recommendation for promotion they will prepare a detailed case for the Director that includes input from the supervisors of the Scientist's functional work. When a Scientist's research time involves astronomy, the APRC may be asked to review the candidate's research as well. Each recommendation for promotion shall include an assessment of the individual's functional activities, research accomplishments, professional activities, and leadership. Evaluation guidelines are provided in §5.3. The SPRC report and recommendation for each Scientist will be forwarded to the Director through the OSAA AD each year by **July 1²**. The final decision on each promotion will be made by the Director with an effective date of **October 1³**. The OSAA AD and the functional supervisor will meet with the candidate to discuss the decision and to provide feedback and counsel regarding continuing professional development.

After promotion to Scientist with an Indefinite Appointment, the SPRC will consider on a triennial basis whether a Continuing Appointment promotion review is warranted. In years between promotion recommendations, each SPRC will provide a brief report on the progress of each Scientist under their purview to the OSAA AD who will then forward the information to the functional supervisor for use in the annual review process, and to the Director if so requested. The OSAA AD shall also use these reports and recommendations to counsel each Scientist on their progress toward their next promotion during the annual Research Appraisal process and at other times as necessary.

4.2 Reviews for Tenure

Tenure is granted by the AUI Board, at the recommendation of the NRAO Director, with the concurrence of the AUI President. Recommendations for tenure may come from either the APRC or from the STPC to the NRAO Director.

Members of the staff who are on term appointments as Assistant or Associate Astronomers will be considered for a Tenure Appointment before the end their sixth year of full time employment in a tenure track position, unless a delay has been granted by the Director. In special cases, the Tenure process may be initiated earlier with the concurrence of the candidate, the Chair of the APRC, the OSAA AD, and the Director. The “early tenure” process may be stopped at any time should it be determined that there is not a high probability of success.

A Scientist with a Continuing Appointment may be recommended for a Tenure Appointment at any time by the STPC. In the case of the STPC, prior to requesting the evaluation materials from a candidate for tenure, the OSAA AD, the Chair of the STPC, and the Director will discuss the probability of success in the candidate being awarded tenure. If it is determined that there is not a high probability of success, the process will stop at this point.

Typically, consideration of a candidate for a Tenure Appointment will proceed according to the calendar provided in Appendix D. The following procedures will be used by both the APRC and the STPC in evaluating a candidate for tenure and reaching a recommendation:

- A. The OSAA AD will ask the candidate to provide materials for the evaluation by a date approximately six weeks⁵ after the request is given (see Appendix A.1). In addition to this material being supplied by the candidate, the OSAA will assemble the candidate’s annual Performance Evaluation Program (PEP) forms for the two previous years. These materials will then be distributed to the Committee (APRC or STPC) for review.
- B. The Committee (APRC or STPC) will select solicit letters from up to ten external referees that the Committee believes to be capable of providing an accurate and fair assessment of the candidate’s qualifications, achievements, and accomplishments, and their suitability for tenure. These may or may not include referees suggested by the candidate. These external referees should be high caliber scientists that have a prominent national and international standing. Former supervisors and collaborators of the candidate should be avoided if possible. After reviewing the final list of names of outside referees with the OSAA AD and the Director, the Committee Chair will solicit the reference letters requesting the responses no more than six weeks later⁶. A sample of a letter soliciting a reference letter is provided as Appendix A.3.

- C. After the referee letters are received, the Committee will review the candidate's complete file and the Committee Chair will prepare a confidential report of the Committee's findings for the OSAA AD. This report will include an evaluation of the candidate's functional and scientific achievements, community service, and a description of the level of contribution the candidate has made to the Mission of the Observatory (Appendix A.3 and Section 5.1). This report shall also record the number of votes within the Committee in favor of or against the recommendation for tenure. The report will be submitted by the OSAA AD to the Director.
- D. The Committee Chair and the OSAA AD shall meet⁷ with the Director to discuss the Committee's recommendation.
- 1) If the Committee recommendation is favorable and the Director approves and nominates the candidate for tenure, the case⁸ will then be presented by the Director's office to the AUI President for his concurrence, and subsequent presentation to the AUI Board of Trustees⁹.
 - a. The complete dossier for a tenure recommendation to the NRAO Director, and subsequently to the AUI President, must include:
 - i. The candidate's detailed curriculum vitae.
 - ii. The candidate's detailed bibliography.
 - iii. A concise summary of the candidate's past accomplishments in research, functional duties, advancement of the Observatory's mission, and community service.
 - iv. A statement of the candidate's future goals.
 - v. A list of external referees including a short bio for each.
 - vi. A copy of the letter sent to the external referees.
 - vii. Copies of letters received from the external referees.
 - b. The recommendation report of the APRC or STPC, as described above.
 - 2) If the Committee recommendation is unfavorable and the Director concurs or if the Director does not approve the Committee's favorable recommendation, the process will stop and no nomination will be sent to the AUI President.
 - a. The Committee's report or the Director's written response will serve as documentation for the unfavorable decision to pursue tenure. Therefore, documents should be as specific as possible while at the same time preserving the confidentiality of the outside reviewers and the opinions of individuals on the APRC or STPC.
 - b. The OSAA AD will meet with the candidate and provide a letter to inform him or her of said unfavorable decision.
 - 3) If a nomination for tenure is not approved by the AUI President or tenure is not granted by the Board:
 - a. AUI will prepare the appropriate documentation to serve as the basis for denial for tenure.

- b. The OSAA AD shall meet with the candidate and provide a letter to inform him or her of said unfavorable decision.
- E. A candidate may appeal a negative decision for tenure by requesting that the Director forward an appeal to the AUI President. The AUI President may create an ad hoc subcommittee of the AUI Board to advise on the merits of subsequent approval or uphold the denial of the request for tenure.
- F. For an Associate Astronomer on a term appointment, if the outcome of the tenure review process is to not grant tenure, a terminal appointment of at least one year will be provided together with an offer of a position in a non-tenure track position if the latter is considered appropriate.
- G. For a Scientist with Continuing Appointment, if the outcome of the tenure review process is to not grant tenure, they will maintain their Continuing Appointment and may be considered for tenure again in the future.

4.3 Reviews for Continuing Appointment

A Continuing Appointment may be made only at the rank of Scientist by the Director based on the recommendation of the appropriate SPRC and with the approval of the AUI President.

A review for a Continuing Appointment will proceed in a similar fashion as a tenure review (see Section 4.2). As with a tenure review, prior to requesting the evaluation materials from a candidate for Continuing Appointment, the Chair of the SPRC, the OSAA AD, and the Director will discuss the probability of success in the candidate being awarded a Continuing Appointment. If it is determined that there is not a high probability of success, the process should stop at this point and the Candidate should not be informed of this consideration.

The following procedures will be used by all SPRC committees in evaluating a candidate for a Continuing Appointment and reaching a recommendation:

- A. The OSAA will ask the candidate to provide materials for the evaluation by a date approximately six weeks¹⁰ after the request is made (see Appendix A.2). In addition to this material supplied by the candidate, the OSAA will assemble up-to-date Performance Evaluation Program (PEP) forms for the two previous years. These materials will then be distributed to the Committee for review.
- B. The Chair will solicit letters from six to eight references that the Committee feels will be able to provide an accurate and fair assessment of the candidate's qualifications, achievements, and accomplishments, and his/her suitability for a Continuing Appointment. These may or may not include referees suggested by the candidate. Up to half of the referees may be researchers or managers from within the Observatory, at least three must be from outside of the Observatory. The referees should be high caliber professionals, prominent nationally and internationally. Due consideration should be given to possible conflicts that may arise over the use of former supervisors and collaborators. After reviewing the list of names of referees with the OSAA AD and the Director, the Committee Chair shall solicit reference letters and responses for no more

than three weeks later¹¹. A sample copy of a letter soliciting a review letter is provided as Appendix A.4.

- C. After the referee letters are received the Committee will review the candidate's complete file and the Committee Chair will prepare a report of their findings for the OSAA AD. This report will include an evaluation the candidate's functional and scientific achievements as well as a description of the level of contribution the candidate has made to the Mission of the Observatory (Appendix A.4 and Section 5.2). A case must be made for the long term continuing need at the Observatory for that particular individual with their unique skills or specialized knowledge. This report shall also record the number of votes in favor of or against the Committee's recommendation. If the report ultimately recommends a Continuing Appointment it will be submitted to the Director by the OSAA AD.
- D. The Committee Chair and the OSAA AD shall meet¹² with the Director to discuss the Committee's recommendation.
 - 1) If the Committee recommendation is favorable and the Director approves and nominates the candidate for a Continuing Appointment, the case will then be presented by the Director to the AUI President for his concurrence.
 - a. The complete dossier for a Continuing Appointment recommendation to the NRAO Director, and subsequently to the AUI President, must include:
 - i. The candidate's detailed curriculum vitae.
 - ii. The candidate's detailed bibliography.
 - iii. A concise summary of the candidate's past accomplishments in their functional duties, advancement of the Observatory's mission, research, and community service.
 - iv. A statement of the candidate's future goals.
 - v. A list of the external and internal referees including a short bio for each.
 - vi. A copy of the letter sent to the referees.
 - vii. Copies of letters received from the referees.
 - b. The recommendation report of the SPRC, as described above.
 - 2) If the Committee recommendation is unfavorable and the Director concurs or if the Director does not approve the Committee's favorable recommendation, the process will stop and no nomination will be sent to the AUI President.
 - a. The Committee's report or the Director's written response will serve as documentation for the decision not to pursue a Continuing Appointment. Therefore, documents should be as specific as possible while at the same time preserve the confidentiality of the referees and individuals of the SPRC.
 - b. The OSAA AD will meet with the candidate and provide a letter to inform him or her of said unfavorable decision.

- 3) If a Continuing Appointment is not approved by the AUI President:
 - a. AUI will prepare the appropriate documentation of the denial for a Continuing Appointment.
 - b. The OSAA AD shall meet with the candidate and provide a letter to inform him or her of said unfavorable decision.
- E. A candidate may appeal a negative decision for a Continuing Appointment by requesting that the Director forward an appeal to the AUI President.
- F. Denial of a Continuing Appointment has no implication for a Scientist's continued employment at that level by the Observatory. They may be considered again for a Continuing Appointment at a later date.

5. Evaluation Guidelines

Recognizing that each scientist and astronomer possesses unique strengths and skills, it is nevertheless important to establish clear guidelines by which they are uniformly evaluated. These guidelines are **not** intended to be a checklist. The relevant PRC is encouraged to assess the particular contributions of each candidate to their field of research, their functional responsibilities and duties to the Observatory, and their service to the wider community.

5.1 Evaluation Guidelines: APRC and STPC

In evaluating a candidate for promotion from Assistant Astronomer to Associate Astronomer (APRC), Associate Astronomer to Astronomer (APRC), and whether to recommend a candidate for a Tenure Appointment (APRC or STPC), the relevant Committee should consider most fundamentally whether the candidate will provide the scientific expertise and leadership essential for ensuring excellence at the NRAO for the long term. The following criteria may be considered, among others, in evaluating a candidate for promotion from Assistant Astronomer to Associate Astronomer:

- A. Scientific productivity and impact of publications in refereed journals and conference proceedings as well as invited talks.
- B. Scientific leadership and participation in the wider scientific community as demonstrated by organizing and participating in professional meetings and workshops, service on advisory bodies, editorial activities, authorship of books and reviews, and service on review panels.
- C. Leadership of development projects related to NRAO facilities or the NRAO mission.
- D. Supervision of students and postdocs; observer support.

In addition, in consideration of a candidate for a tenure appointment and/or promotion from Associate Astronomer to Astronomer, the following criteria may be considered:

- E. Success in securing external funding for scientific investigations, instrument development and/or construction, meeting support, student support, or postdoc support.
- F. Service to the Observatory, including management and supervisory duties, and committee participation.

Finally, in consideration of a candidate for a tenure appointment, the following criteria may be considered:

- G. The content and quality of the letters from the external referees (reputation among peers).
- H. The expectation that the individual will continue to make long-term contributions to excellence in scientific research and the Observatory mission.

5.2 Evaluation Guidelines: STPC

Normally, a Continuing Appointment is the last promotion on the Scientist track. Under exceptional circumstances, a Scientist with a Continuing Appointment may be awarded a Tenure Appointment. Criteria for the promotion of a Scientist with a Continuing Appointment to a Tenure Appointment are the same as those outlined in §5.1.

5.3 Evaluation Guidelines: SPRC

In evaluating a candidate for promotion from Assistant Scientist to Associate Scientist, Associate Scientist to Scientist, and ultimately whether to recommend a candidate for a Continuing Appointment in any of the three science areas – astronomy, computational science, or research engineering – the relevant Committee should consider whether the candidate provides the necessary expertise and leadership abilities to make significant contributions to the NRAO mission. In evaluating a candidate's research activities, the Committee should consider the time available to the candidate for research.

5.3.1 SPRC - Astronomy

The following criteria may be considered in evaluating a candidate for promotion from Assistant Scientist to Associate Scientist in Astronomy:

- A. Leadership in advancing NRAO operational facilities and/or development projects related to radio astronomical instrumentation, including high-level design specifications, coordination of scientific and/or operational requirements, and/or management of budget and schedule
- B. Publications in refereed journals and conference proceedings; invited presentations.
- C. User and operations support, commissioning support, NRAO technical reports and memos.
- D. Supervision of pre-doctoral, summer, or co-op students.

In addition, in consideration of a candidate for a Continuing Appointment and/or promotion from Associate Scientist to Scientist, the following criteria should be considered:

- E. Service to the professional community, including administrative positions in professional societies; membership on review panels and standards Committees; review and editorial functions for professional journals; and organizing of scientific or technical conferences.
- F. Service to the Observatory in other areas, such as supervisory duties and Committee participation.

In consideration of a candidate for a Continuing Appointment, the following criteria should also be considered:

- G. The content and quality of the letters from the external referees (reputation among peers)
- H. The expectation that the individual will continue to make long-term contributions to excellence in the Observatory mission.

5.3.2 SPRC - Computational Science

The following criteria may be considered in evaluating a candidate for promotion from Assistant Scientist to Associate Scientist in Computational Science:

- A. Leadership in the development of unique algorithms, techniques, or implementations being used for NRAO instruments and/or other observatories.
- B. Publications in refereed journals and conference proceedings; invited presentations.
- C. User and operations support, commissioning support, NRAO technical reports and memos.
- D. Supervision of pre-doctoral, summer, or co-op students.

In addition, in consideration of a candidate for a Continuing Appointment and/or promotion from Associate Scientist to Scientist, the following criteria should be considered:

- E. Group leadership of software development projects, including high-level design, professional growth of subordinate developers and students, resource management, and quality of group product.
- F. Service to the professional community, including administrative positions in professional societies; membership on review panels and standards Committees; review and editorial functions for professional journals.
- G. Service to the Observatory in other areas, such as supervisory duties and Committee participation.

In consideration of a candidate for a Continuing Appointment, the following criteria should also be considered:

- H. The content and quality of the letters from the external referees (reputation among peers)
- I. The expectation that the individual will continue to make long-term contributions to excellence in the Observatory mission.

5.3.3 *SPRC – Research Engineering*

The following criteria should be used in evaluating a candidate for promotion from Assistant Scientist to Associate Scientist in Research Engineering:

- A. Leadership in the development of unique instrumentation (systems, hardware and/or software) of original design and implementation operating at NRAO facilities or other observatories.
- B. Publications in refereed journals and conference proceedings; invited presentations.
- A. Commissioning support, NRAO technical reports and memos.
- B. Supervision of pre-doctoral, summer, or co-op students.

In addition, in consideration of a candidate for a Continuing Appointment and/or promotion from Associate Scientist to Scientist, the following criteria should be considered:

- C. Group leadership of technical development projects, including high-level design, professional growth of subordinate engineers and students, resource management, and quality of group product.
- D. Service to the professional community, including administrative positions in professional societies; membership on review panels and standards Committees; review and editorial functions for professional journals; and organizing of scientific or technical conferences.
- E. Service to the Observatory in other areas, such as supervisory duties and Committee participation.

In consideration of a candidate for a Continuing Appointment, the following criteria should also be considered:

- F. The content and quality of the letters from the external referees (reputation among peers)
- G. The expectation that the individual will continue to make long-term contributions to excellence in the Observatory mission.

APPENDIX A: SAMPLE LETTERS AND COMMUNICATION

A.1 Request to Tenure candidate for materials.

Subject: Consideration for Tenure Promotion

From: <AD OSAA>

To: <candidate>

Cc: <APRC Chair> or <STPC Chair>

Dear <candidate>,

The <Astronomer Performance Review Committee (APRC)> <Scientist Tenure Promotion Committee (STPC)> is considering recommending you for Tenure. Please put together the following information so that the Committee can carry out its evaluation.

- A comprehensive curriculum vitae, including education, employment history, honors, outside or visiting appointments, professional memberships, and internal and external Committee service.
- A complete bibliography of your publications.
- A concise narrative describing your professional achievements (2-3 pages).
 - Include a list of what you consider to be your five or six most significant achievements. These may include research, functional duties, and community service.
- A statement of future professional goals for individual research and service to the Observatory (2-3 pages).
- The names of up to ten senior external individuals who are familiar with your work.
 - Include biographical sketches, institution, and mail/e-mail addresses for each referee as well as a short description of your working relationship.
 - Former supervisors and collaborators should be avoided if possible.

Please provide these items to <OSAA Administrator> within six weeks from the date of receipt of this request. Let me know if you are unable to meet this deadline. Your help in getting this process started is very much appreciated.

A.2 Request to Continuing Appointment candidate for materials.

Subject: Consideration for Continuing Appointment Promotion

From: <AD OSAA>

To: <candidate>

Cc: <SPRC Chair>

Dear <candidate>,

The <Scientist Performance Review Committee (SPRC)> is considering recommending you for a Continuing Appointment. Please assemble the following dossier so that the Committee can carry out its evaluation.

- A comprehensive curriculum vitae, including education, employment history, honors, outside or visiting appointments, professional memberships, and internal and external Committee service.
- A complete bibliography of your publications.
- A concise narrative describing your professional achievements (2-3 pages).
 - Include a list of what you consider to be your five or six most significant achievements. These may include functional duties, research, and community service.
- A statement of future professional goals for individual research and service to the Observatory (2-3 pages).
- The names of up to eight senior individuals who are familiar with your work; up to three can be internal to NRAO.
 - Include brief bio-sketches, institution, and mail/email addresses for each reference as well as a short description of your working relationship.
 - Former supervisors and collaborators should be avoided if possible.

Please provide these items to OSAA AD, c/o Billie Orahood (borahood@nrao.edu) within six weeks from the date of receipt of this request. Let me know if you are unable to meet this deadline. Your help in getting this process started is very much appreciated.

A.3 Request to external referees for science evaluation of Tenure candidate.

Dear [Referee]:

The National Radio Astronomy Observatory (NRAO) is considering a recommendation to the Associated Universities, Inc., Board of Trustees for a tenure appointment for Dr. (candidate), and we ask your help in evaluating [his/her] candidacy. The Observatory depends on the excellence of its tenured staff in their diverse specialties to fulfill its mission of providing forefront astronomical facilities for the benefit of the astronomical community. Scientists at the NRAO progress through a series of positions similar to those at U.S. universities and, if successful, may be considered for an NRAO tenure appointment. The tenure appointment constitutes recognition of independent accomplishment of a high order in performance of original research, functional work within the Observatory, and professional leadership. Tenure appointments are intended to afford appointees the maximum practical freedom to direct their own efforts, and so are taken very seriously by both NRAO and AUI. Tenured staff are expected to continue to carry out a program of independent, original research as well as to provide scientific or technical leadership in the planning, design, construction and operation of Observatory facilities. Although AUI tenure does not guarantee the same degree of security as tenure at a university, once granted it constitutes a commitment of continuing employment by AUI, and can be terminated only by action of the AUI Board of Trustees and only for reasons of financial exigency or a demonstration of adequate cause.

We are asking your assessment of Dr. (candidate)'s research accomplishments, [his/her] contributions to radio astronomy, [his/her] reputation among [his/her] peers, and [his/her] leadership abilities, all qualities critical to the NRAO in carrying out its mission. We would particularly like your opinion on how [he/she] compares with other scientists engaged in comparable work in the United States and internationally. The AUI Board has requested that referees be asked to name peers at major universities, observatories, and national laboratories with whom a candidate might be compared. For additional perspective, I am attaching relevant excerpts from the current NRAO Scientific Staff Policy Manual to this letter. Since NRAO's mission differs somewhat from that of a university, we ask that your consideration of the candidate be made in the context of the issues discussed in this material. The issue for NRAO and AUI is whether the candidate has the potential to make significant and enduring contributions to the Observatory's mission.

Dr. (candidate)'s curriculum vitae and [his/her] statement of accomplishments and future plans are enclosed. If there is additional information you would find helpful in making your assessment, I would be happy to provide it. It would be most helpful if we could have your response no later than three weeks after receipt of this letter. Your letter will, of course, be considered strictly confidential and will be seen only by the NRAO [Astronomy Performance Review Committee/ Scientist Tenure Promotion Committee], the NRAO Director, and by the AUI Board of Trustees.

I appreciate the considerable time involved in responding to requests of this kind and thank you very much for your help.

Sincerely,
Chair, [Astronomy Performance Review Committee/Scientist Tenure Promotion Committee]

Encl. (*Candidate's CV and bibliography, and Policy and Mission Statement summary.*)

Enclosure for request for letter of reference for Tenure candidate.

Excerpts from NRAO Scientific Staff Policy Manual (April 2006)

IV-4. Procedures for Tenure

An Associate Astronomer who is being considered for tenure will be asked to supply...and a list of external scientists who might be asked for letters of evaluation. The candidate's list will be used to guide the chair of the APRC in soliciting letters normally from six to eight external scientists, asking their opinion about the suitability of the candidate for tenure. The external scientists will be prominent nationally and internationally, and will include representatives of the candidate's specific field of interest, as well as others who might bring a broader perspective on the candidate's achievements.

IV-3. Astronomer Tenure Appointments

Astronomer Tenure appointments are granted only by action of the Board of Trustees of Associated Universities, Inc., upon recommendation of the Observatory Director and the Astronomer Performance Review Committee (APRC) with the concurrence of the AUI President. A Tenure appointment constitutes recognition of independent leadership accomplishment of a high order in performance of original research, functional work within the Observatory and professional leadership activity. The Tenure appointment also represents an expectation that the individual will continue to make long term contributions to the NRAO mission. A Tenure appointment can also be made to a newly hired astronomer whose previous record indicates that she or he will excel in these areas of work.

... Tenure appointments are intended to afford appointees the maximum practical freedom to direct their own activities and to provide a sufficient degree of economic security to attract persons of outstanding ability. Astronomer staff members with Tenure appointments are expected to provide leadership in planning, design, construction, and operation of Observatory facilities, and to carry out a program of independent original research. In the Astronomer track, a Tenure appointment may only be granted while the individual has the rank of Associate Astronomer. In special cases, for outside appointments, tenure may be granted at the rank of Astronomer.

V-2. Types of Appointments in the Scientist Track

... Normally a Continuing Appointment is the last promotion in the Scientist track. Under exceptional circumstances, Scientists may also be awarded AUI Tenure ...

NRAO Mission Statement

The National Radio Astronomy Observatory enables forefront research into the Universe at radio wavelengths.

In partnership with the scientific community, we:

- provide leading telescopes, instrumentation and expertise,
- train the next generation of scientists and engineers, and
- promote astronomy to foster a more scientifically literate society.

A.4. Request to referees for evaluation of candidate for Continuing Appointment

Dear [Referee]:

The National Radio Astronomy Observatory (NRAO) is considering a recommendation to the President of Associated Universities, Inc. (AUI), for the promotion of Dr. (candidate) to the rank of "Scientist, Continuing Appointment." We ask your help in evaluating [his/her] candidacy.

The Observatory depends on the excellence of its scientific staff in their diverse specialties to fulfill its mission of providing forefront astronomical facilities for the benefit of the astronomical community. Scientists at NRAO progress through a series of positions similar to those at U.S. universities, which include parallel and equal tracks for astronomy and the engineering and computing sciences. A Continuing Appointment constitutes recognition of independent accomplishment of a high order in performance of functional work within the Observatory, original research, and professional leadership. Scientists with a Continuing Appointment are expected to provide scientific leadership in the planning, design, construction and operation of Observatory facilities.

To be considered for a Continuing Appointment, the candidate must exhibit a high degree of skill and competence in a specific area required to further the mission and operation of the Observatory. Typical activities for which a Continuing Appointment may be made are operation of a major facility, the design of new facilities, service to user programs, the development of unique software, and the development and operation of special equipment or instruments. Although a Continuing Appointment does not guarantee the same degree of security as AUI Tenure, once granted a Continuing Appointment shall not be revoked except for enforcement of sponsoring agency contractual provisions, or by reasons of financial exigency or major change of program, or a demonstration of adequate cause.

We are asking for your assessment of Dr. (candidate)'s research accomplishments, [his/her] contributions to the NRAO mission, [his/her] reputation among [his/her] peers, and [his/her] potential for continuing contributions to NRAO in carrying out its mission. Particularly valuable is your opinion on how [he/she] compares with other scientists and engineers engaged in comparable work in the United States and internationally. Names of peers at major universities, observatories, and national laboratories with whom the candidate can be compared would be particularly helpful. For additional perspective, I am attaching relevant excerpts from the current Scientific Staff Policy Manual to this letter. Since the NRAO mission differs somewhat from that of a university, we ask that your consideration of the candidate be made in the context of this material.

Dr. (candidate)'s curriculum vitae, summary of significant achievements, and statement of professional goals are enclosed. If you require additional information in making your assessment, I will be happy to provide it. Your response no later than three weeks after receipt of this letter will be appreciated. Of course, your letter will be considered confidential and will be seen only by a small Committee of NRAO senior staff, the Director of NRAO, and the President of AUI.

I understand the considerable time involved in responding to requests of this kind and thank you very much for your help.

Sincerely,
Chair, Scientist Performance Review Committee – *(Technical Area)*

Encl. *(Candidate's CV and bibliography, and Policy and Mission Statement summary.)*

Enclosure to request for letter of reference for Continuing Appointment candidate.

Excerpts from NRAO Scientific Staff Policy Manual (April 2006)

V-3. Procedures for Review and Promotion

For a Continuing Appointment..., the chair of the appropriate SPRC (Scientist Performance Review Committee) shall solicit evaluations from Scientists and Astronomers within the Observatory, and at least three scientists or engineers outside of the Observatory to help evaluate the contributions of the candidate.

V-2. Continuing Appointments

Continuity of various programs [at NRAO]... in the design, construction, and operation of experimental facilities and in high-level professional services requires the presence of a continuing staff. To be considered for a Continuing Appointment, the candidate must exhibit a high degree of skill and competence in a specific area required to further the mission and operation of the Observatory. Typical activities for which a Continuing Appointment may be made are operation of a major facility, the design of new facilities, service to user programs, the development of unique software, and the development and operation of special equipment or instruments. Normally, scientific staff members with a Continuing Appointment will be expected to devote three-quarters of their time to the performance of these duties and are encouraged to maintain a program of independent research in their [one-quarter] self-directed time. A Continuing Appointment may be made only at the rank of Scientist by the Director based on the recommendation of the appropriate Scientist Performance Review Committee (SPRC) and with the approval of the AUI President. A case must be made for the long-term continuing need at the Observatory for that particular individual with the unique skills or specialized knowledge. Scientists with a Continuing Appointment may possibly be considered for a Tenure appointment.

A Continuing Appointment shall not be revoked except for enforcement of sponsoring agency contractual provisions, or by reason of financial exigency or major change of program

V-2. Types of Appointments in the Scientist Track

... Normally a Continuing Appointment is the last promotion in the Scientist track. Under exceptional circumstances, Scientists may also be awarded AUI Tenure ...

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APPENDIX B: CURRENT MINIMUM QUALIFICATIONS

Assistant Astronomer

An appointee to the rank of Assistant Astronomer shall hold a doctoral degree or, in exceptional circumstances, have achieved the equivalent level of accomplishment, and normally have several years of postdoctoral experience. The appointee shall have demonstrated promise of a superior level of creative ability and independent research accomplishment in his or her field and possess skills which are required for the Observatory's mission. Appointees should be qualified and competent to direct work of others such as technicians, graduate students, and other research personnel.

Associate Astronomer

In addition to the qualifications of an Assistant Astronomer, the appointee shall have demonstrated extensive experience and accomplishment in scholarly and creative astronomical research, functional work, and professional activities. In addition, appointees to this rank shall have demonstrated an ability to propose, develop, and manage forefront research projects. Tenure decisions will generally be made while the individual is an Associate Astronomer.

Tenure

A Tenure appointment constitutes recognition of independent leadership accomplishment of a high order in performance of original research, functional work within the Observatory and professional leadership activity. The Tenure appointment also represents an expectation that the individual will continue to make long term contributions to the NRAO mission. Astronomer staff members with Tenure appointments are expected to provide leadership in planning, design, construction, and operation of Observatory facilities, and to carry out a program of independent original research.

Astronomer

In addition to the qualifications of an Associate Astronomer, the appointee shall have demonstrated a degree of proficiency in astronomical research sufficient to establish an excellent reputation as an authority in the field at a national and international level. Appointees should have a record of outstanding, scholarly production of astronomical research, publications, professional achievements or other distinguished creative activity. There should be a clear record of accomplishment in furthering the Observatory mission

Distinguished Astronomer

On the recommendation of the Director, outstanding Astronomers can be granted the status of Distinguished Astronomer by the AUI Board of Trustees. These individuals will have received national or international recognition for outstanding research accomplishments.

Assistant Scientist

An appointee to the rank of Assistant Scientist shall hold a doctoral degree or, in exceptional circumstances, will have achieved the equivalent level of accomplishment, and normally have several years of postdoctoral experience. The appointee shall have demonstrated promise of superior level of creative ability in his or her field and possess skills which are required for the Observatory's mission. Appointees should be qualified and competent to direct work of others such as technicians, graduate students, and other research personnel.

Associate Scientist

In addition to the qualifications of an Assistant Scientist, the appointee shall have demonstrated extensive experience in their area of technical expertise. If research is a part of the Scientist's job description, evidence of success in that area during previous appointments is also expected. A record of professional activities should also be demonstrated.

Scientist

In addition to the qualifications of an Associate Scientist, the appointee shall have demonstrated a degree of proficiency in their technical work sufficient to establish an excellent reputation in the field. If there is a research component to their work, appointees should have a demonstrated record of sound, scholarly production of research publications. A consistent record of professional activity should be established. There should be evidence of significant professional achievements or other distinguished creative activity. There should also be a clear record of accomplishment in furthering the Observatory mission.

Continuing Appointment

To be considered for a Continuing Appointment, the candidate must exhibit a high degree of skill and competence in a specific area required to further the mission and operation of the Observatory. Typical activities for which a Continuing Appointment may be made are operation of a major facility, the design of new facilities, service to user programs, the development of unique software, and the development and operation of special equipment or instruments. A case must be made for the long term continuing need at the Observatory for that particular individual with the unique skills or specialized knowledge.

Tenure

Normally a Continuing Appointment is the last promotion in the Scientist Track. Under exceptional circumstances, Scientists may also be awarded AUI Tenure.

Distinguished Scientist

On the recommendation of the Director, outstanding Scientists can be granted the status of Distinguished Scientist by the AUI Board of Trustees. These individuals will have received national or international recognition for outstanding research accomplishments.

APPENDIX C: COMMITTEE MEMBERSHIP (2009-10)

Astronomer Performance Review Committee (APRC)

Chris Carilli (Chair), Jim Condon, Miller Goss, Harvey Liszt, Jay Lockman, Scott Ransom

Scientist Tenure Promotion Committee (STPC)

Tony Kerr (Chair), Bill Cotton, Rick Fisher, Ed Fomalont, Peter Napier, Rick Perley

Scientist Performance Review Committee for Astronomy (SPRC-A)

Jim Condon (Chair), Aaron Evans, Jeff Mangum, Rick Perley, Jon Romney, Al Wootten

Scientist Performance Review Committee for Research Engineering (SPRC-RE)

Peter Napier (Chair), Darrel Emerson, Tony Kerr, S. K. Pan, Marian Pospieszalski

Scientist Performance Review Committee for Computer Science (SPRC-CS)

Ed Fomalont (Chair), Eric Greisen, Brian Butler, Bill Cotton, Brian Glendenning, Craig Walker

APPENDIX D: IMPORTANT DATES AND TIMELINES

Dates for Annual Scientific Review Process

Sept.-Jun	<i>Academic Year</i> – majority of the business of the Review Committees is to be conducted during this period.
Sept.	Annual meeting of the Director, OSAA AD, and Chairs of Promotion Review Committees to discuss following year's Promotions Calendar.
Oct. 1	The nominal effective date of scientific* promotions.
Oct-Dec	Chair requests updated CV, biblio, summary of research and functional activities from candidates undergoing triennial review for promotion
Mar-May	Annual Personnel Evaluation Process (PEP).
May 15	Current year SSPA forms and CVs due to SPRCs for Candidates undergoing triennial promotion review.
June 15	SPRC recommendations due to OSAA AD
Jun-Sept.	Annual salary review.
July 1	Recommendations for scientific* promotions due from OSAA AD to the Director, with anticipated effective date of Oct 1.

*With the exception of Tenure cases which can be initiated and applied at any time.

Timeline of Promotion Process for Tenure and Continuing Appointments

T+0 weeks	Committee recommends promotion to Tenure or Continuing Appointment to OSAA AD
T+2 weeks	Meeting of Director, Committee Chair, and OSAA AD
T+2weeks	Upon confirmation, Candidate is asked to provide materials
T+8 weeks	Candidate materials due in OSAA.
T+8 weeks	OSAA distributes Candidate and PEP material to Committee.
T+11 weeks	In consultation with Committee members, the Chair selects referees for reference letters. Director reviews list and the confirmed list of referees are sent letters soliciting their recommendation by the Committee Chair.
T+17 weeks	All letters to be received by the Committee Chair.
T+20 weeks	Committee reviews complete file and prepares a report of findings to the OSAA AD.
T+21 weeks	OSAA AD reviews complete file and meets with the Director to discuss recommendation..
T-22 weeks	Director Reviews package and if approved submits it to AUI for further consideration.
T+28 weeks	The AUI Board (for tenure) or the AUI President (for CA) review materials.
T+30 weeks	AUI provides decision to the Director and he in turn informs OSAA AD of the decision.

APPENDIX E: EXPLANATORY FOOTNOTES

¹ The NRAO Scientific Staff Policy Manual can be found on the Science and Academic Affairs web page at <http://www.nrao.edu/administration/OSAA/scistaffpolicy.pdf>.

² The NRAO annual review process begins with the Scientific Staff Research Appraisals (see <http://www.nrao.edu/internal/hr/ResearchPA.doc>) which are completed during March to June for the year beginning the previous April. The NRAO Salary Review is then conducted during the period June to September.

² Review Committee recommendations for promotions of scientific staff are nominally submitted to the OSAA AD for presentation to the Director by July 1. Tenure recommendations can be accepted at other times approved by the Director.

³ Nominal effective date for promotions and/or appointment to Tenure or Continuing Appointment is October 1. Tenure effective dates may vary due to timeliness of approval process.

⁵ Materials from candidates should be received no more than six weeks after they have been requested by the Committee Chair.

⁶ Requests for letters of reference should be made no more than two weeks after the receipt of the Candidate's materials, asking for a reply no more than three weeks after their receipt of said letter.

⁷ A meeting among the Committee Chair, the OSAA AD, and the Director should be held no more than two weeks after the Committee's recommendation for promotion is received by the Director from the OSAA AD.

⁸ Six sets of Tenure package materials must be sent to AUI for their distribution to the AUI Board subcommittee.

⁹ Reviews for Tenure are conducted by the AUI Board at their Board Meetings. Tenure materials must be received by AUI at least six weeks prior to an upcoming meeting. Please see the NRAO General Meetings calendar for AUI Board Meetings.

¹⁰ Tenure materials from candidates should be received no more than six weeks after they are requested.

¹¹ Requests for letters of reference regarding Tenure should be made no more than two weeks after the receipt of the Candidate's materials, asking for a reply no more than three weeks after receipt of said letter.

¹² The meeting among the Committee Chair, the OSAA AD, and the Director should be held no more than two weeks after the Committee's recommendation for Tenure consideration is received by the Director from the OSAA AD.