

**Responses to Questions Posed by Subcommittee on Re-competition  
Submitted on Behalf of  
Association of Universities for Research in Astronomy**

**Achieving *best value* for the users, the overall science community and the nation**

1. What are implications of recompetition action for those involved in educational outreach? Are there recommendations for implementation that would enhance this activity?

*With the demise of the Partnership for Astronomy and Astrophysics Education (PAARE), there is little opportunity for facility operators to participate in EHR related educational and broadening participation programs since they are not, in most cases, academic institutions. Facility operators attempt to address these within their operating budgets and these must compete with core operations elements. The NSF should consider its facilities as “national laboratories” and promote the use of such facilities as research experience in fulfilling the goals for broadening participation. NSF policy on recompetition and facility management in general should allow greater flexibility for the proposer to participate in both a facility program and an NSF broadening participation effort.*

2. Are there international initiatives, programs with which a facility is associated, or other activities beyond the facility whose continuity is affected by recompetition?

*For facilities operated on foreign soil, the policy on recompetition should recognize that a non-profit operator might spend decades building up needed political and social linkages. Focused educational programs and location specific research collaborations are essential to the success of a foreign based operator. These are not easily replaced and are extremely difficult to value in a recompetition.*

*There are also contractual/legal linkages for most international collaborations. For example, in the specific case involving the building of large Gemini instruments that have often involved foreign partner institutions, a recompetition (and especially change of operator) might put at risk and possibly phase out or terminate relationships with some foreign institutions.*

3. How is, or how should, the user community be involved in the re-competition process? (for example, during pre-award assessment, operational oversight, and development of criteria for future competition?)

*From the user standpoint, the primary deliverable should be science and the ability to do science. For the most part, the NSF policy on recompetition is not particularly relevant unless a facility operator has clearly demonstrated it cannot act in the interest of the users and is not delivering the full scientific potential that is achievable.*

*Thus, the NSF Management Review is an appropriate way to directly involve the community in making this judgment. The success of this approach depends on two major factors however. First it is necessary for the NSF to select individuals for such management reviews that truly*

*represent the bulk of the users. Second, the National Science Board should value the recommendations of the Management Review panels as a major source of input in any final decision.*

4. Are there unintended consequences of recompetition of which the subcommittee should be aware?

*It is important to recognize that a recompetition, although nominally aimed at the parent managing organization, affects the entire facility staff from the senior managers down to the technicians, clerical staff, etc. It is completely unrealistic to imagine that only the top layer management and governance can be removed and replaced. The linkage between this layer and the facility operations staff is strongly integrated and not separable in most cases.*

*One major consequence of a re-competition which is not well recognized is that there will exist a protracted period of "blackout" in which the normal working relationship between the facility operator and the NSF is impeded because of the fear that some special advantage for the incumbent will accrue. Facility operators depend on this communication and cannot properly fulfil NSF or community expectations if it is interrupted.*

*Another possible consequence relates to the legal obligations of a new operator for major procurements that are in process during the transition. Such contracts may need to be fully renegotiated.*

5. What are suggestions or how the recompetition process should be executed? (Should it be carried out like a major procurement, with a request for letters of intent, a prequalification process for bidders, and a best value comparison based on prioritized comparison factors?)

*The existing procurement process seems adequate. AURA has no specific suggestions for improvement.*

*However, the sheer scale of the workload for NSF staff and facility staff in carrying out this process is large. In the case of the NSF staff it seems larger than the manpower resources available, and would detract from their management and oversight responsibilities if every contract was actually recompeted.*

6. Do you have specific recommendations regarding the possible consideration of involving a for-profit entity in a future recompetition?

*The fundamental goal of facility operation is to deliver a service to the community on behalf of the NSF, that is, to operate a facility in a way that optimizes the scientific research potential for the community. A not-for-profit organization is more appropriate for vesting responsibility for facility operation. A not-for-profit entity can more effectively form strong linkages with academia. A for-profit organization is more appropriate for delivering a service to the NSF.*

7. Are there components of the workscope for operation of a facility that could beneficially be separately competed? For example – involvement for educational outreach, partnering with minority-serving institutions, commercial applications of technology?

*These elements of a facility operation should be core objectives for the operator. They are not easily separated out and would detract from the mission of the observatory if they were.*

### **Tailoring recompetition to the uniqueness of scientific facilities and their operators**

1. How is research conduct affected by cross-linkages between different components of the awardee's suite of stewardship responsibilities? (For example AUI operates NRAO, which has facilities in Charlottesville VA, Socorro NM, the VLA field site, Green Bank Telescope, and ALMA (in partnership). There are linkages between these facilities for ALMA ∃ for example, the front and back end electronics, and the correlator for ALMA are being manufactures and will be serviced by Socorro and Charlottesville sites. How would the research community be affected by separate recompetition of these elements? Can you offer input about the merit of these arrangements, and whether they provide opportunities or pose barriers to innovation and creativity that benefit the research community?

*The NRAO situation is a prime example of the need for the NSF to nurture and promote strong national observatories, and not subjugate that goal to some overriding need for recompetition. The question properly describes the strong relationship between elements of AUI that have evolved over the years that are all essential to the operation of ALMA. It is doubtful ALMA could be successful without the work in Charlotsville, Socorro, Green Bank, etc. A recompetition should hold as its primary goal the strengthening of the national organizations, not dissecting them and reducing their strength. The ability to unify management, take advantage of the strengths of various parts of the organization, capitalize on cost reducing economies between organizational elements, etc are essential to building strong public organizations that optimize taxpayer investments.*

*A recompetition, if it is held, should consider the entirety of the operation and should not split off elements purely for the sake of competition. There may be reasons to split off organizational elements, but this should not be done for competition sake alone. For example, the NSF separated out the National Solar Observatory from NOAO in order to promote NSO as a strong stand alone organization. This was appropriate and has had a beneficial effect, but it was done as a management decision, not a procurement strategy.*

2. What does recompetition mean for a facility located on a university campus? Are their unique considerations for university based programs that preclude recompetition? What are the consequences to the user community of mandating the operating award be shared with other institutions collaborating?

*A facility operating on a university campus needs to nurture close working relationships with that institution. For example, joint appointments, student programs, etc help both the university and the facility. These programs require long term commitments exceeding five years and are not easy to establish as an obligation for a replacement operator. Replacing the operator and interdicting these commitments could have adverse effects for the academic institution.*

*Mandating that the operating award be shared with other collaborating institutions creates a management nightmare. Shared management authority creates a chaos in terms of accountability and responsibility. It is recognized that large multi-organizational collaborations*

*established for the purpose of competing for an award create the illusion of strength in being able to actually capitalize on the attributes of the individual collaborating organizations. This is nearly never the case.*

3. How are users affected by the terms and conditions of an international partnership? Are there considerations in the coordination of scientific programs and the timing and progression of recompetition activities? What are the opportunities or vulnerabilities of the user community research programs to the renegotiation integrating a new US awardee into the partnership?

*International partnerships provide a means for the US community to achieve its goals through avenues other than through an NSF-only facility. There can be scientific benefits to such international collaborations, but often these are simply a financial necessity, both for the US and for international partners.*

*Recompetition presents a potential discontinuity in the management of international facilities. Each such arrangement is different, however, and the NSF should formally solicit the views of other partners, or managing boards in making the decision to recomplete an operating contract.*

#### **Cadence and processes that *balance fairness and transparency with users' and incumbents' interests***

1. Is the 5-year period of an operating award correct, or should some other time period be more appropriate?

*The traditional five year award is too short for the stated policy of recompetition at every expiration. It results in a near continuous process of preparing for a competition and is a distraction for actually operating a facility. AURA would recommend that every award have a built in option for a second five year extension based on a management review. This extension should not be subject to the formalism of an NSB approval.*

*For international collaborations, the recompetition should be timed with whatever international agreement is in place, or should be codified in the agreement itself.*

2. Is a competition involving "all inclusive" consortia representing all US research institutions participating in the particular field of research 'fair'?

*In the case of AURA, the membership base is not of itself a factor in recompetition. All policy decisions and substantive fiduciary responsibility is carried out by the AURA Board not the member institutions. Thus, member institutions are free to compete with or collaborate with other competing entities.*

3. How much emphasis should be placed on soliciting multiple offerors? Should evaluation criteria be crafted to encourage multiple offerors?

*The NSF staff should not be obligated to encourage other offerors. Indeed this seems inherently unfair toward the incumbent since it suggest an a priori desire to replace the incumbent. The NSF should make all awards open and should ensure that any offeror has the proper information to develop a proposal. The proactive solicitation of offerors in order to create a "competitive" situation, however, is inappropriate.*

4. How should panels or evaluators for recompetitions be selected?

*Panels of evaluators should be knowledgeable as to the facility operation and the science goals. Obviously they should be unconflicted. When a single institution is proposing, it is likely that every member of that institution is in some way conflicted and would be inappropriate for an evaluation panel. For large consortia such as AURA, members of individual member institutions are not inherently conflicted since, as stated above, the AURA Board holds all fiduciary responsibility.*

Questions for operators:

1. What should be conveyed in a recompetition? What stays and what could change with a new operator: staff, property, intellectual property?

*Only government furnished equipment should convey in a recompetition. All other items mentioned are unique investments by the incumbent and the benefits of these investments should not automatically be transferred. Property owned by the incumbent should not convey, but nor should it be an impediment to recompetition. In the case of AURA, property owned by AURA would be made available for the use of a replacement operator, but AURA would retain the title. Staff constitutes a special case. Obviously a new operator should assume some obligation towards their continued employment, accrued benefits, etc.*

*Visas for “aliens” are sponsored and obtained by the “operators”. The transfer would need to be done in a timely and orderly matter and this could be messy – this is already complicated. Health Care plan and Pension benefits programs could be at stake. Intellectual property and patents need to be considered and handled carefully to avoid costly lawsuits.*

2. Should agreements with other parties such as subawards and subcontracts convey in a recompetition?

*For facilities that are FFRDCs, the presumption is that these facilities will continue to operate regardless of the managing organization. Thus, agreements made at the facility level, or imbedded in the facility operating mission, should be honored by any replacement managing organization. This includes collaborations with other facilities, membership on management boards, etc. These are inherently based on the capabilities of the facility, not the managing organization per se, and thus need to be honoured.*

3. Incumbent offerors have an intrinsic advantage in a recompetition, do efforts to encourage multiple offerors also make the competition unfair?

*As stated above, it is inappropriate for the NSF to **encourage** multiple offerors. This undermines the working relationship between the facility operator and the NSF. It also creates a questionable obligation of the NSF towards the offerors being encouraged. The NSF should make the opportunity to compete widely available and should run an unbiased competition. Encouraging other competitors creates an inherent bias, or at least the appearance thereof.*

## **Execution of recompetition with practical limitations and usable evaluation criteria**

1. How is the user community involved in the recompetition process? How should they be (for example, during pre-award assessment, operational oversight, development of criteria for future competition?)

*The user community should be a major reference point for making the decision to undertake a recompetition. If a facility operator has served the community well and has acted as a good steward of a facility a recompetition should only be undertaken if there is some overriding defined benefit to the NSF. It is not likely that a cost reduction per se is an adequate motivation for recompetition if the operator is in tune with changing community needs and is willing to evolve to be responsive to the community.*

*If a facility operator has not demonstrated this relationship to the community however, a recompetition can be valuable in redefining the facility, and possibly in reorienting the managing organization itself. It should not be assumed that improvements can only be obtained by replacing the managing organization.*

2. How should evaluation criteria for recompetition be set?

*Optimizing science should be first and foremost. Cost reductions must necessarily be considered, but should not be a defining criteria for an award. For the most part, all current managing organizations operate on a minimal margin of management fees and overhead. The purpose of a competition should be to ensure on a long term basis a continual focus on how well the service is being delivered from a scientific standpoint.*

*Most other policy changes and financial improvements can be accomplished better by means other than a recompetition. For example, a major budgetary reduction for Gemini, resulting from the withdrawal of the UK from the partnership, was accomplished by a close interaction between the facility operator and the NSF. This interaction would not have been possible within a competitive situation.*

## **Scientific research involving collaboration with awardee staff:**

1. How are collaborative research activities between facility staff and community researchers likely to be impacted in a recompetition process? What recommendations do you have for processes that put science first in a recompetition process?

*Scientific staff are essential to the effective operation of a facility. They should be oriented towards leveraging and enabling the scientific aspirations of the community through collaborations and scientific leadership, and in fully demonstrating the capabilities of the facility itself. Independent research outside of these criteria could be useful, but are not essential to the operation of a facility.*

*A recompetition could impact this valuable relationship between a facility and the community. This is especially true when a proposer offers to reduce or eliminate scientific staff for cost reduction purposes. This creates a false sense of economy and cost effectiveness. Public*

*facilities that serve the broadest segments of the community require scientific leadership from the facility staff.*

2. What is the effect of recompetition on the ability of the awardee to recruit and retain staff needed to support the user community? Are there suggestions for specific recompetition implementation policies to address this?

*A recompetition has a profound effect on the ability to recruit and retain valuable scientific and technical staff. This creates a sense of insecurity for any professional staff person. As a minimum, replacement operators should honor tenure and staffing decisions that were intended to provide long term stability for the staff.*

**Considerations for facilities that operated as international partnerships :**

1. Are there special considerations in implementing recompetition pertaining to the coordination of international partnerships, which have defined scope and duration, with respect to the timing and schedule of recompetition activities?

*Yes, nearly every international collaboration has unique considerations that intersect with the NSF policy towards recompetition. Often this policy is seen as imposing a unique NSF requirement on the entire partnership. As a minimum, the NSF should formally request the view of whatever governance body is related to the facility. This is as important as the community views referenced above. The NSB should directly consider these views in their decision making process.*

2. Are there considerations in the coordination of scientific programs and the timing and progression of recompetition activities? For example, Cooperative Agreements or contracts have a 5-year duration, but the timescale for some research activities, or international agreements, can have other durations. Is this a problem, and if so, what recommendations do you have for NSF?

*There is often a mismatch between the duration of an international agreement and the cooperative agreement. Imposing a recompetition in a manner out of synch with an international agreement could have a detrimental and distracting result.*

3. What are implications for broader impacts and professional development in facilities located outside the US, where postdocs and professional staff are associated with an awardee by international agreement?

*For locations outside of the US, the NSF goal of broadening participation is often much less important than building relationships that are in tune with the local culture. This may have nearly no relevance to the under-represented groups, institutions, and geographic areas that are the focus of NSF broadening participation programs.*

4. What are the consequences to US researchers of a recompetition of the operating award? For example, the proposal for time allocation in the case of telescopes, or collaborative activities involving academic and awardee partners.

*A recompetition should place off limits the time allocation process for telescopes. This should not be within the purview of the managing organization per se, but a means of fairly allocating the benefits of investment in facilities and optimizing the scientific return for all parties.*

Considerations for facilities operated by academic consortia:

1. Some facilities are operated by consortia that represent all or nearly all of the organizations conducting research in a particular discipline. What can be done, and what should be done to stimulate creativity and innovation in that circumstance?

*In the case of AURA, the Board is principally responsible for developing policies and taking on contractual responsibilities. The member institutions have an important input as representative of the broader community, however they are not directly responsible for the management of our facilities.*

2. What would the affect on the research community be of transferring the award to a new entity (such as non-profit, commercial organization, or one of the members of the current consortium)?

*In the case of AURA, there would be no uniquely detrimental effect of transferring the operating responsibility to a current institutional member of AURA as opposed to a non-member. They have no unique advantage over non-member institutions and it would not be a conflict. The exception to this is when a facility is operating on a university campus. In that case, that university may indeed have an unfair advantage over other institutions depending on how the competition is conducted. Thus, any recompetition should clarify that the relocation to another campus would be within the scope of consideration.*