Unless otherwise specified in a special condition of the Cooperative Agreement or an associated Cooperative Support Agreement, or as modified below, the Cooperative Agreement Financial & Administrative Terms and Conditions (CA-FATC) dated, 8/03, are applicable to this Cooperative Agreement.

A. Cooperative Agreement Financial & Administrative Terms and Conditions Modifications

The Cooperative Agreement Financial & Administrative Terms and Conditions (CA-FATC, 8/03) are modified as follows:

1. Article 3, Prior Approval Requirements, is supplemented with two additional paragraphs (d and e) as follows:

   d. In cases where Cooperative Support Agreements are the funding mechanism for the Cooperative Agreement, the prior approval requirements specified above are applicable to EACH Cooperative Support Agreement. (See also Article 48 below for additional requirements for Cooperative Support Agreements.)

   e. In accordance with Article 13, Allowable Costs, for non-profit organizations other than public and private institutions of higher education, allowable costs shall be determined in accordance with OMB Circular A-122 and the terms of the Cooperative Agreement. The following are advance understandings established between NSF and the Awardee with respect to certain provisions of OMB Circular A-122:

      (1) The advance NSF approvals required by the following Sections of OMB Circular No. A-122, Attachment B, are hereby given to the Awardee for actions taken by the Awardee under this Agreement.

         Paragraph 32 "Overtime, Extra-Pay Shift, and Multishift Premiums"
         Paragraph 34 "Participant Support Costs"
         Paragraph 41 "Publication and Printing Costs"
         Paragraph 55 "Travel Costs"

      (2) Paragraph 15, "Equipment and Other Capital Expenditures" is inapplicable, as it is superceded by the provisions established in Article 7,
Equipment (see below), and Paragraph 53, "Training and Education Costs" is superceded by the Awardee's policy manuals submitted to the NSF.

2. Article 5, No-Cost Extensions, is deleted in its entirety, except in those cases where a grant has been issued to the Awardee for activities supported outside this Agreement.

3. Article 7, Equipment, is deleted in its entirety and replaced with the following:

Article 7. Equipment

a. In accordance with the requirements of OMB Circular A-110, .33(a)(1), for all equipment exceeding $25,000, in accordance with subparagraph c below, the Awardee must submit an annual inventory listing of Government-owned property to the NSF Property Administrator, Division of Administrative Services (DAS). The listing should include all Government-owned equipment purchased under the Cooperative Agreement or acquired by screening excess through the General Services Administration (GSA) and all leased GSA vehicles; include the type of equipment, serial number, acquisition price, acquisition date and condition of the equipment. Both the most recent Government-owned equipment inventory listing, and the Awardee’s most recent audited financial statements, should be submitted electronically to fsrpts@nsf.gov and must be received by DAS no later than September 1 each year.

If financial statements are not available electronically, a paper copy should be submitted to:

National Science Foundation
Division of Administrative Services
Attention: NSF Property Administration
4201 Wilson Boulevard,
Room 295
Arlington, VA  22230

b. Reservation by Government. The Government reserves the right to erect buildings (except at locations owned by the Awardee, in which case Awardee approval must be obtained), provide facilities, and furnish materials, equipment, machinery, tools or services, including communication services, as may be needed for the work.

c. Title.

1. Legal title to all real and personal property, the cost of which has been funded entirely from funds provided to the Awardee through this Agreement with NSF, or acquired from other Government agencies, with an acquisition cost in excess of $25,000, shall vest in the Government when title passes from the vendor and shall remain with the Government, unless otherwise specified in writing by the Grants and Agreements Officer. Legal title to all real and personal property, as described above, the cost of which has been defrayed from funds provided the Awardee through this Agreement with an acquisition cost equal to or less than $25,000, shall vest in the Awardee.
2. Title to Government Property shall not be affected by the incorporation or attachment thereof to any property not owned by the Government, nor shall any Government-owned property lose its identity by reason of affixation to any realty.

d. **Responsibility of the Awardee.**

1. The Awardee is responsible and accountable for the management, control and use of all property furnished or acquired under this Agreement.

2. In accordance with the provisions of this Agreement and with OMB A-110, the Awardee shall maintain complete property and financial records and accounts pertaining to property furnished or acquired under this Agreement.

3. The Awardee shall account for all Government Property not consumed in the performance of this Agreement until relieved of such responsibility. The Awardee shall furnish to the Grants and Agreements Officer and the NSF Property Administrator all data necessary to substantiate any request for discharge from this responsibility.

4. The Awardee shall inform the Grants and Agreements Officer and the NSF Property Administrator when inventoried Government Property for which the Awardee is responsible is located at a place other than the Awardee’s location and is not being used in connection with the work under this Agreement.

e. **Access to Records and Property.** The Awardee agrees to provide access to all property records associated with the Agreement to authorized representatives of the Grants and Agreements Officer, during reasonable times at the office of the Awardee. In addition, access to any premises where Government Property is located will be provided for the purpose of inspecting such property.

f. **Maintenance and Repair.** The Awardee shall maintain and administer, in accordance with sound business practice, a program for the maintenance, repair, protection, and preservation of Government Property so as to assure its full responsibility and usefulness for the performance of the work under this Agreement.

g. **Inventories.** Upon the expiration or termination of this Agreement, and such other times as directed by the Grants and Agreements Officer, the Awardee shall submit inventory schedules to the Grants and Agreements Officer and the NSF Property Administrator covering all items of Government Property not consumed in the performance of the work.

h. **Disposition.**

1. No disposition shall be made of Government Property without the prior approval of the NSF Property Administrator. However, in the case of trade-in or dismantle/scrap, the Awardee is only required to notify the NSF Property Administrator.

2. Government Property shall remain in the possession of the Awardee for such period of time as is required for the performance of the work under this Agreement.
Agreement unless the Grants and Agreements Officer determines that the interests of the Government require removal of such property.

3. With the authorization of the NSF Property Administrator, the Awardee shall transfer or otherwise dispose of Government Property accumulated under this Agreement upon such terms and conditions as the Grants and Agreements Officer may designate; or, with the approval of the Grants and Agreements Officer, the Awardee may itself acquire title to such property. The proceeds from any such transfer or disposition or the agreed price for any property, title to which is so acquired by the Awardee, shall be applied in reduction of any payments to be made by the NSF to the Awardee under this Agreement, or shall otherwise be paid in such manner as the Grants and Agreements Officer may direct.

i. Awardee’s Liability.

1. Except as otherwise specifically provided, the Awardee shall not be liable for loss or destruction of or damage to any property purchased or otherwise acquired by it in connection with this Agreement, including Government Property, unless such loss, destruction, or damage results from the willful misconduct or lack of good faith on the part of any of the Awardee’s directors or officers, or on the part of any of her/his managers, superintendents, or other equivalent representatives, who has supervision or direction of (1) all or substantially all of the Awardee’s business, or (2) all or substantially all of the Awardee’s operations at any one plant or separate location in which this Agreement is being performed, or (3) a separate and complete major industrial operation in connection with the performance of this Agreement.

2. Unless specifically authorized by the Grants and Agreements Officer, the Awardee will not be reimbursed for the cost of insurance covering loss or destruction of or damage to Government Property.

3. In the event of loss or destruction of or damage to Government Property, arising from any cause, the Awardee shall, to the extent reasonable and practical, promptly notify the Grants and Agreements Officer and the NSF Property Administrator and take all reasonable steps to protect the property from further damage, separate the damaged and undamaged Government Property, put all the property in the best possible order, and furnish to the Grants and Agreements Officer a statement identifying:

(a) The lost, destroyed, and damaged Government Property.

(b) The time and origin of the loss, destruction, or damage.

(c) All known interests in commingled property of which the Government Property is a part.

(d) The insurance, if any, covering any part of or interest in such commingled property.
4. The Awardee, to the extent reasonable and practical, may make repairs and renovations of damaged Government Property, except that major repairs and renovations shall be made only with the approval of the Grants and Agreements Officer.

5. In the event the Awardee is indemnified, reimbursed, or otherwise compensated for any loss or destruction or damage to Government Property, it shall use the proceeds to repair, renovate or replace the Government Property involved, or shall otherwise reimburse the Government, as directed by the Grants and Agreements Officer. The Awardee shall do nothing to prejudice the Government's right to recover against third parties for any such loss, destruction or damage and, upon the request of the Grants and Agreements Officer, shall, at the Government's expense, furnish to the Government all reasonable assistance and cooperation (including the prosecution of suit and the execution of instruments of assignment in favor of the Government) in obtaining recovery.

6. This Article shall not be construed as relieving a subcontractor from liability for loss or destruction of or damage to Government Property in its possession or control, except to the extent that the subcontract, with the prior approval of the Grants and Agreements Officer, may provide for the relief of the subcontractor from such liability. In the absence of such approval, the subcontract shall contain appropriate provisions requiring the return of all Government Property in the same condition as when received except for reasonable wear and tear or for the utilization of the property in accordance with the provisions of the prime agreement.

7. Where the subcontractor has not been relieved from liability for any loss or destruction of or damage to Government Property, the Awardee shall enforce the liability of the subcontractor for such loss or destruction of or damage to the Government Property for the benefit of the Government.

4. Article 26, Suspension and Termination, paragraph e. is replaced with the following:

e. Within 120 days of the termination date, the Awardee will furnish a summary of progress under the award and an itemized accounting of costs incurred prior to the termination date or pursuant to d, above. Final allowable costs under a termination settlement shall be in accordance with the terms of the award, including this Article, and the appropriate Federal cost principles, giving due consideration to the progress under the award. In no event will the total of NSF payments under a terminated award exceed the award amount, or the NSF pro rata share of the total project costs when cost sharing was anticipated, whichever is less.

5. Article 39, Liability, is deleted in its entirety and replaced with the following:
Article 39. Liability

a. NSF cannot assume any liability for accidents, illnesses, injuries, or claims arising out of, or related to, any activities supported by the Cooperative Agreement or for unauthorized use of patented or copyrighted materials. The Awardee organization is advised to take such steps as may be deemed necessary to insure or protect itself, its employees and its property.

b. The Awardee shall procure and thereafter maintain workmen's compensation, employer's liability, comprehensive general liability (bodily injury), comprehensive automobile liability (bodily injury and property damage), and comprehensive aircraft liability (bodily injury and property damage) insurance, with respect to performance under this Agreement, and such other insurance as the Grants and Agreements Officer may from time to time require with respect to performance under this Agreement; provided, that the Awardee may, with the approval of the Grants and Agreements Officer, maintain a self-insurance program: and provided further, that with respect to workmen's compensation the Awardee is qualified pursuant to statutory authority. All insurance required pursuant to the provisions of this paragraph shall be in such form, in such amounts, and for such periods of time as the Grants and Agreements Officer may from time to time require or approve, and with insurers approved by the Grants and Agreements Officer.

c. The Awardee agrees, to the extent and in the manner required by the Grants and Agreements Officer, to submit for the approval of the Grants and Agreements Officer any other insurance maintained by the Awardee in connection with the performance of the Agreement and for which the Awardee seeks reimbursement hereunder.

d. The Awardee shall be reimbursed (1) for the portion allocable to this Agreement of the reasonable cost of insurance as required or approved pursuant to the provisions of this Article, and (2) for liabilities to third persons for loss or damage to property or for death or bodily injury, not compensated by insurance or otherwise, arising out of the performance of this Agreement, whether or not caused by the negligence of the Awardee, its agents, servants or employees, provided such liabilities are represented by final judgments or settlements approved in writing by the Government, and expenses incidental to such liabilities, except liabilities (i) for which the Awardee is otherwise responsible under the express terms of the article or articles, if any, specified in this Agreement, or (ii) with respect to which the Awardee has failed to insure as required or maintain insurance as approved by the Grants and Agreements Officer, or (iii) which results from willful misconduct or lack of good faith on the part of any member of the Board of Trustees of the Awardee, any corporate officer, or any of its managers, superintendents, or other equivalent representatives, who has supervision or direction of (1) all or substantially all of the Awardee's business or (2) all or substantially all of the Awardee's operations at any one plant or separate location in which this Agreement is being performed, or (3) a separate and complete major operation in connection with the performance of this Agreement. The foregoing shall not restrict the right of the Awardee to be reimbursed for the cost of insurance maintained by the Awardee in connection with the performance of this Agreement, other than insurance required to be maintained pursuant to the provisions of this Article, provided such cost would constitute an
allowable cost under the Article entitled "Allowable Cost" and the applicable cost principles.

e. Any reimbursement hereunder shall be made only from funds provided pursuant to the terms and conditions of the Cooperative Support Agreement(s) or from funds which may be allocated in the future specifically for the purpose of the indemnification of the Awardee.

f. The Awardee shall give the Government or its representatives immediate notice of any suit or action filed, or prompt notice of any claim made against the Awardee arising out of the performance of the Agreement, the cost and expense of which may be reimbursable to the Awardee under the provisions of this Agreement and the risk of which is then uninsured or in which the amount claimed exceeds the amount of coverage. The Awardee shall furnish immediately to the Government copies of all pertinent papers received by the Awardee. If the amount of the liability claimed exceeds the amount of coverage, the Awardee shall authorize representatives of the Government to collaborate with counsel for the insurance carrier, if any, in settling or defending such claim. If the liability is not insured or covered by bond, the Awardee shall, if required by the Government, authorize representatives of the Government to settle or defend any such claim and to represent the Awardee in or take charge of any litigation in connection therewith; provided, however, that the Awardee may, at its own expense, be associated with the representatives of the Government in the settlement or defense of any such claim or litigation.

B. Supplemental Financial & Administrative Terms and Conditions

The (CA-FATC) are supplemented with the following additional terms and conditions:

<table>
<thead>
<tr>
<th>Article</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>45.</td>
<td>Authorization and Consent</td>
</tr>
<tr>
<td>46.</td>
<td>Master Site Plan</td>
</tr>
<tr>
<td>47.</td>
<td>Lease or Purchase of Additional Space</td>
</tr>
<tr>
<td>48.</td>
<td>Cooperative Support Agreements</td>
</tr>
<tr>
<td>49.</td>
<td>Subaward Requirements</td>
</tr>
<tr>
<td>50.</td>
<td>Government Performance and Results Act (GPRA)</td>
</tr>
<tr>
<td>51.</td>
<td>Non-Renewal of the Cooperative Agreement</td>
</tr>
<tr>
<td>52.</td>
<td>Radio Frequency Assignments</td>
</tr>
<tr>
<td>53.</td>
<td>General Services Administration Sources of Supply</td>
</tr>
</tbody>
</table>

45. Authorization and Consent

The Government hereby gives its authorization and consent for all use and manufacture of any invention described in and covered by a patent of the United States in the performance of this Cooperative Agreement or any part hereof or any amendment hereto or any subaward hereunder (including any lower-tier subaward).
46. **Master Site Plan**

a. When required by the cognizant Program Officer, a Master Site Plan pertaining to the facility supported under the Cooperative Agreement must be provided as specified below:

1. The Master Site Plan will be provided to the cognizant NSF Program Officer by October 1 of each year.

2. No requests for approval of rent, lease, purchase, or renovation of lands, buildings, structures or facilities will be considered by the NSF Program Officer or the NSF Grants and Agreements Officer without a current Master Site Plan submitted for that fiscal year.

3. Each Master Site Plan will include:

   (a) A map that identifies:

      (1) the location, boundaries, and acreage of NSF-owned and/or leased lands;

      (2) the location of existing buildings, structures, and facilities; and

      (3) the location of proposed buildings, structures, and facilities.

   (b) A Usage Chart that sets forth in table format:

      (1) the identification of land (or segments thereof), buildings, structures, or facilities use;

      (2) the placement within these of equipment types; and

      (3) an explanation, if any of these is not being utilized with recommendations for retention or disposal.

   (c) A Statement of Need for additional lands, buildings, structures, and facilities in addition to those above must be supported by a new space needs assessment and an updated Master Site Plan that must be submitted to NSF at least two fiscal years in advance of any specific need and that includes:

      (1) The statement of specific needs, including why existent space is not adequate to meet that need;

      (2) Any geographic restrictions;

      (3) A supported request that justifies rent, lease, acquisition, construction or renovation activities with associated cost estimates from qualified individuals; and

      (4) An accompanying Temporary Science Project Relocation Plan with actual projected Time Line and Costs for any of the above requests that will affect projects underway.
47. Lease or Purchase of Additional Space

a. Requests for NSF approval to lease or purchase additional space might include justifying documentation sufficient to assess the request, as applicable. Approval by the cognizant Program Official and the Grants and Agreement Officer is required prior to:

1. acquiring real property or interest therein with direct or indirect Federal funds provided under this Agreement;

2. issuing, refinancing or altering bonds used to finance the acquisition of real property;

3. establishing a Lease/Purchase Space arrangement.

b. Lease/Purchase analyses for proposed space should be in accordance with OMB Circular A-122, Attachment B, paragraph 23a(1)b.

48. Cooperative Support Agreements

a. Cooperative Support Agreements (CSAs). CSAs will be issued by the NSF for support of specific projects and/or programs for work to be done under the general “Statement of Work” of each CSA. Amendments will be issued to modify specific terms and conditions of the CSA, including funding amendments that might be funded by the NSF Division that issued the CSA, other NSF Divisions, or other Federal agencies.

1. Each CSA issued after the effective date of the Cooperative Agreement will normally include the following:

   (a) A Statement of Work, that incorporates by reference the Awardee's proposal;

   (b) The period of performance of the CSA; (Note: The expiration date of all CSAs issued under the Cooperative Agreement will be coterminous with the Cooperative Agreement, or at NSF’s option may extend beyond that the Cooperative Agreement.)

   (c) The estimated cost of the program/project and the amount of funds obligated under the CSA;

   (d) The name of the cognizant NSF Program Officer designated under each CSA; and

   (e) The electronic signature of NSF Grants and Agreements Officer.

Cooperative Support Agreements (CSA) or amendments to CSAs issued under this Agreement may be unilateral or bilateral, depending on their nature. Incremental funding amendments will normally be unilateral. Bilateral CSAs will require the written acknowledgement of the Awardee.

b. NSF Grants to the Awardee. NSF may elect to award individual grants to the Awardee for projects that are limited in scope and duration. For the sake of consistency and uniformity,
these individual grants will incorporate the terms and conditions of this Agreement, as modified, rather than the standard NSF Grant Terms and Conditions (GC-1).

c. **Conditions for Interagency Transfer of Funds.** If funding from other Federal agencies is to be provided to the Awardee via interagency fund transfer, the process will begin with an interagency agreement that effects the transfer of funds from the other funding agency to NSF and will conclude with the issuance of an amendment to a CSA by NSF transferring the funds to the Awardee pursuant to the interagency agreement. It is NSF’s responsibility to provide to the Awardee copies of all interagency agreements that transfer funds in support of the Awardee’s proposals. It is the Awardee’s responsibility to notify the prospective sponsor that, as a condition of NSF’s entering into an interagency agreement of fund transfer, other Federal agencies must agree to the following conditions:

1. NSF will implement the agreement by an amendment issued to a CSA under this Cooperative Agreement, or any successor agreement, and NSF will not itself be directly responsible for the provision of goods or services contemplated under the Awardee’s proposal to the other Federal Agency.

2. It is the Awardee’s responsibility to provide the necessary fiscal and technical reports to the sponsoring agency in accordance with the terms and conditions of the sponsoring agency’s agreement.

3. NSF assumes no liability for any costs above the funds obligated against the CSA.

4. In accordance with NSF policy, a portion of the incoming fund transfer will be set aside to recover costs that NSF incurs in the management, administration and oversight of the funded activities at a rate predetermined by the NSF.

5. All fund transfers and work performed will be accepted under the terms and conditions of this Agreement.

d. **Format for Submission of Requests for Funding under Cooperative Support Agreements and Supplements.** In submitting proposals requesting NSF funding, the Awardee shall use the standard NSF Budget format to provide budget information. The Authorized Organizational Representative must sign this form. Written justification for all funding requests is required.

49. **Subaward Requirements**

a. The Awardee is responsible for compliance with the procurement standards identified in Sections .40 through .48 of OMB Circular A-110. All subcontract actions of the Awardee shall be in accordance with the Awardee’s procurement policies and procedures and must be consistent with any special conditions included in this Agreement.

b. The Awardee shall obtain the written approval of both the cognizant NSF Program Official and the Grants and Agreements Officer prior to entering into any subcontract hereunder which (i) is a capital expenditure acquisition exceeding $250,000; (ii) provides for the fabrication, purchase, rental, installation, or other acquisition of any items of office space or industrial facilities exceeding $250,000; (iii) is for architectural or engineering services exceeding $250,000; (iv) is for construction, including renovations and alterations, exceeding $250,000; (v) is for leasing of aircraft exceeding $250,000; or (vi) is for consultant services exceeding $250,000.
50. Government Performance and Results Act (GPRA)

Under the Government Performance and Results Act of 1993 (5 U.S.C. 306, 31 U.S.C. 1114-1119, “GPRA”) the NSF is required to report on the Federal Performance Goals for Facilities. This may include the collection and submission of specific data related to the NSF GPRA requirements. The Awardee will be required to submit estimates of the relevant performance metrics early in the fiscal year (by December 31) and actuals shortly after the fiscal year end (by October 31). Any and all facilities with an annual budget exceeding $1,000,000 must report on their operations activities; and any and all construction/upgrade projects that exceed a total project cost of a specified threshold must report on their construction/upgrade activities. Therefore, the Awardee will be required to submit reports related to the GPRA performance goals to the cognizant NSF Program Officer.

For further information on GPRA, see the NSF GPRA Home Page at: http://www.nsf.gov/od/gpra/.

51. Non-Renewal of the Cooperative Agreement

a. In the event that the Agreement to manage the FFRDC is not renewed, the Awardee agrees to provide for an orderly and efficient transition to the successor Awardee selected by NSF.

1. NSF agrees to provide written notice fifteen months prior to non-renewal of the Cooperative Agreement, unless less notice is not possible due to an Executive or Congressional mandate.

2. Upon non-renewal, the Awardee may submit to NSF those costs related to the Agreement termination or non-renewal that have been documented and verified by an audit performed by an independent certified public accountant (hereafter referred to as audit). These costs may include medical insurance, severance pay, or other costs for Awardee employees under this Agreement. The Awardee also may submit costs related to the Awardee non-renewal of subcontracts related to work supported by this Agreement.

3. Determination of the allowability of these costs and the consideration of funds available to NSF to pay these costs will be made by NSF at the time of termination or non-renewal. NSF will make every effort to obtain funding sufficient to cover the allowed costs subject to the availability of funds for this purpose. Nothing, however, in this Article may be interpreted to imply that the United States Congress will appropriate funds to meet the requirements of this Article.

52. Radio Frequency Assignments

No equipment requiring frequency assignment shall be tested and operated until a formal assignment of the necessary frequencies has been made pursuant to the Section 11.5(d) of Office of Management and Budget Circular No. A-11, as well as Section 8.2.5 of the Manual of Regulations and Procedures for Federal Radio Frequency Management, United States Department of Commerce, National Telecommunications and Information Administration. All
requests for radio frequency assignments required in support of this Agreement should be submitted to the NSF's Frequency Assignment Coordinator not less than 120 days before the date that the frequency assignment is required. NSF will notify the Awardee of the approval or the status of the request 60 days after submission of the request to the Frequency Assignment Coordinator.

53. **General Services Administration Sources of Supply**

The Awardee is authorized to utilize GSA supply sources for goods and services, including the use of interagency motor pool vehicles and related services. The Awardee will comply with applicable GSA regulations and Foundation instructions concerning purchase from GSA sources of supply. The use of interagency motor pool vehicles, their service and maintenance, and the use of related services by the Awardee shall be in accordance with 41 CFR 101-39.