AGREEMENT DATE: April 18, 2016
[Supersedes Rate Agreement dated: August 13, 2015]

NEGOTIATION AGREEMENT

INSTITUTION: THE PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY PARK, PA 16801-3857

The Internal Cost rates contained herein are for use on grants, contracts and/or other agreements issued or awarded to the Pennsylvania State University (PSU) by all Federal agencies in accordance with the cost principles mandated by 2 CFR 200. These rates shall be used for forward pricing and billing purposes for the PSU's Fiscal Year 2016. This rate agreement supersedes all previous rate agreements/determinations for Fiscal Year 2016.

Section I: RATES - TYPE: FIXED (FIXED)

Applied Research Laboratory -- Internal Rates:

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>TYPE</th>
<th>FROM</th>
<th>TO</th>
<th>RATE</th>
<th>BASE</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorized Absences</td>
<td>Fixed</td>
<td>7/1/15</td>
<td>6/30/16</td>
<td>24.1%</td>
<td>(a)</td>
<td>ARL¹</td>
</tr>
<tr>
<td>Internal Overhead On-Site</td>
<td>Fixed</td>
<td>7/1/15</td>
<td>6/30/16</td>
<td>51.0%</td>
<td>(b)</td>
<td>ARL</td>
</tr>
<tr>
<td>Internal Overhead Off-Site</td>
<td>Fixed</td>
<td>7/1/15</td>
<td>6/30/16</td>
<td>27.5%</td>
<td>(b)</td>
<td>ARL</td>
</tr>
</tbody>
</table>

Electro Optics Center -- Internal Rates:

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>TYPE</th>
<th>FROM</th>
<th>TO</th>
<th>RATE</th>
<th>BASE</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorized Absences</td>
<td>Fixed</td>
<td>7/1/15</td>
<td>6/30/16</td>
<td>21.6%</td>
<td>(c)</td>
<td>EOC²</td>
</tr>
<tr>
<td>Internal Overhead</td>
<td>Fixed</td>
<td>7/1/15</td>
<td>6/30/16</td>
<td>78.3%</td>
<td>(d)</td>
<td>EOC</td>
</tr>
</tbody>
</table>

¹ Applied Research Laboratory
² Electro-Optics Center

DISTRIBUTION BASES
(a) ARL salaries, excluding graduate assistants, fixed term II and visiting faculty appointments not receiving full benefits and authorized absences.

(b) ARL MTDC as defined as follows: Modified total direct cost (which includes fringe benefits), excludes graduate tuition remission, capital equipment (defined as having an expected life of one year or more and acquisition cost of $5,000 or more), plant construction, building amortization, the portion of each subaward in excess of $25,000, and patient care costs.

(c) EOC salaries, excluding graduate assistants, fixed term II and visiting faculty appointments not receiving full benefits and authorized absences.

(d) EOC MTDC as defined as follows: Modified total direct cost (which includes fringe benefits), excludes graduate tuition remission, capital equipment (defined as having an expected life of one year or more and acquisition cost of $5,000 or more), plant construction, building amortization, the portion of each subaward in excess of $25,000, and patient care costs.

SECTION II - GENERAL TERMS AND CONDITIONS

A. LIMITATIONS: Use of the rates set forth under Section I is subject to any statutory or administrative limitations and is applicable to a given grant, contract or other agreement only to the extent that funds are available and consistent with any and all limitations of cost clauses or provisions, if any, contained therein. Acceptance of any or all of the rates agreed to herein is predicated upon all the following conditions: (1) that no costs other than those incurred by the grantee/contractor were included in its indirect cost pool as finally accepted and that all such costs are legal obligations of the grantee/contractor and allowable under governing cost principles; (2) that the same costs that have been treated as indirect costs are not claimed as direct costs; (3) that similar types of costs, in like circumstances, have been accorded consistent accounting treatment; (4) that the information provided by the contractor/grantee, which was used as the basis for the acceptance of the rates agreed to herein and expressly relied upon by the Government in negotiating the said rates, is not subsequently found to be materially incomplete or inaccurate.

B. ACCOUNTING CHANGES: The rates contained in Section I of this agreement are based on the accounting system in effect at the time this agreement was negotiated. Changes to the method(s) of accounting for costs, which affects the amount of reimbursement resulting from the use of these rates, require the written approval of the authorized representative of the cognizant negotiating agency for the Government prior to implementation of any such changes. Such changes include but are not limited to changes in the charging of a particular type of cost from indirect to direct. Failure to obtain such approval may result in subsequent cost disallowances.
C. FIXED RATES WITH CARRY-FORWARD PROVISIONS: The fixed rates contained in this agreement are based on estimates of the costs for FY 2016. When actual costs for this fiscal year are determined, adjustments will be applied to the next subsequent rate negotiation to recognize the difference between the FY 2016 estimated costs used to establish the fixed rates and the negotiated actual FY 2016 costs.

D. CARRY-FORWARD AMOUNTS: The following carry-forward amounts were considered in the establishment of the FY 2016 fixed rates:

<table>
<thead>
<tr>
<th></th>
<th>Liquidated in FY 16 Fixed Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Internal Overhead</td>
</tr>
<tr>
<td>ARL</td>
<td></td>
</tr>
<tr>
<td>FY 14 Estimated</td>
<td>$(173,439)</td>
</tr>
<tr>
<td>Total</td>
<td>$(173,439)</td>
</tr>
<tr>
<td>EOC</td>
<td></td>
</tr>
<tr>
<td>FY 14 Estimated</td>
<td>$60,884</td>
</tr>
<tr>
<td>Total</td>
<td>$60,884</td>
</tr>
</tbody>
</table>

( ) Denotes Over-Recovery.

E. USE BY OTHER FEDERAL AGENCIES: The rates set forth in Section I hereof were negotiated in accordance with and under the authority set forth in 2 CFR 200. Accordingly, such rates shall be applied to the extent provided in such regulations to grants, contracts and other transactions to which 2 CFR 200 is applicable, subject to any limitations in part A of this section. Copies of this document may be provided by either party to other Federal agencies to provide such agencies with documentary notice of this agreement and its terms and conditions.

F. SPECIAL REMARKS:

1. The internal overhead rates included in Section I are not intended to be applied to intergovernmental Personnel Act (IPA) costs. If the Applied Research Lab, or the Electro-Optics Center elects to seek reimbursement of F&A or internal overhead costs associated with IPA agreements, then the University and the Office of Naval Research shall establish special F&A and/or internal overhead rates for IPA agreements in accordance with the provisions of 2 CFR 200.

2. The Government's agreement with the rates set forth in Section I is not an acceptance of Pennsylvania State University's accounting practices or methodologies. Any
3. reliance by the Government on cost data or methodologies submitted by Pennsylvania State University is on a non-precedence-setting basis and does not imply Government acceptance.

Accepted:

FOR PENNSYLVANIA STATE UNIVERSITY:

[Signature]

Joseph J. Donosecz
Associate Vice President for Finance and Corporate Controller

4/26/16

Date

FOR THE U.S. GOVERNMENT:

[Signature]

Linda B. Shipp
Contracting Officer

4/26/16

Date

For information concerning this agreement, contact:
Betty Tingle (bettty.dingucl@navy.mil), (703) 696-7742
Office of Naval Research, Indirect Cost Branch