AGREEMENT

between

THE OFFICE OF NAVAL RESEARCH

and

      (recipient’s name)

      (recipient’s address)

Agreement for

Lightweight and Modern Metals Manufacturing Innovation (LM3I) Institute

Agreement No.:

Total Amount of Agreement:

Total Estimated Government Funding of the Agreement: $70,000,000

Total Estimated Recipient Funding of the Agreement:

Funds Obligated:

Authority: 10 U.S.C. 2358, as amended; 10 U.S.C. 2192, as amended; and 10 U.S.C. 2521, as amended

Effective Date: Date of Award

Procurement Request Number:

Line of Appropriation: SEE ATTACHED FINANCIAL ACCOUNTING DATA SHEET(S)

Contractor Cage Code:       Contractor DUNS Number:

This Cooperative Agreement, hereinafter referred to as the Agreement, is entered into between the Office of Naval Research (the Federal Awarding agency) on behalf of the United States of America, hereinafter referred to as the "Government," and       (recipient’s name), hereinafter referred to as the "Recipient," and collectively referred to as the parties pursuant to and under U.S. Federal Law.

FOR THE FOR THE UNITED STATES OF AMERICA

      (Recipient’s name) OFFICE OF NAVAL RESEARCH:

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Signature Date Signature Date

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Typed Name Typed Name

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Agreements Officer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**ARTICLE 1. INTRODUCTION AND PURPOSE**

The objective of this agreement is to establish a Lightweight and Modern Metals Manufacturing Innovation Institute that will significantly advance manufacturing within the United States.

The design and manufacture of lightweight and modern metal components and structures is of great importance to the DoD, and to other government agencies and commercial markets who recognize the role of lightweight and modern metals in achieving enhanced system performance and weight reductions – leading to greater energy efficiency and lower life-cycle costs. Because of legacy handbook-style engineering practices, however, new structural alloys face tremendous barriers to application, due largely to a lack of qualified design guides and certifications. This has affected adversely the investments and innovations made into lightweight and modern metals, resulting in a dearth of new metal and alloy development and applications, particularly in lightweight metals that are critical to the U.S. industrial base for both DoD and commercial applications.

The LM3I Institute will advance an integrated systems approach needed to improve efficiency and effectiveness to bring about cost effective transition to production of these advanced metals and alloys, and to strengthen U.S. competitiveness. The basis of this systems approach is Integrated Computational Materials Engineering (ICME), which is the integration of materials information, captured in computational tools, with engineering product performance analysis and manufacturing-process development. Employing this powerful emergent field allows halving the overall time and cost needed to design new alloys and their processing and manufacturing into commercially viable components and systems. The Institute needs to create, verify, validate, and advance the full range of engineering and analytical tools, processes, and principles supporting lightweight and modern metals development and production.

The design and manufacturing of lightweight metals into components and systems, however, is not a mere matter of materials substitution. ICME provides a quantitative framework for the design of the material and its processing for the target application. This turns the materials and their processing into design parameters to enable overall engineering design of a lightweight system. Integrating the emerging manufacturing capabilities in metals processing, fabrication and design, increases the speed at which lightweight and modern metals enter the marketplace at competitive price points, thus improving U.S. Manufacturers’ global competitiveness. The intent of the LM3I Institute is to bring together materials designers, materials suppliers, product designers, and manufacturers to collaborate on the design, production, and commercialization of affordable, manufacturable, lightweight systems.

The Lightweight and Modern Metals Manufacturing Innovation Institute will serve to bridge the gap between early research and product development and introduction, provide shared assets to help companies access cutting-edge capabilities and equipment, and create an unparalleled environment to educate students and train workers in advanced manufacturing skills. This Institute will serve as a technical center of excellence, providing the innovation infrastructure to support manufacturing enterprises of all sizes and ensure that the U.S. manufacturing sector is a key pillar in an enduring and thriving economy. This, in turn, will create an adaptive workforce capable of meeting industry needs, further increasing domestic competitiveness and meeting DoD and other participating commercial and civilian agency requirements.

The DoD in particular requires a dynamic partnership with the U.S. industrial base to produce and integrate the use of highly advanced lightweight and modern metals to maintain its technological advantage. The LM3I Institute can play an integral role as a regional/national hub within the National Network for Manufacturing Innovation (NNMI) construct. It shall foster resource leveraging and innovation in advanced metals processing and fabrication to improve performance, lower life cycle costs (development, procurement, operational and sustainment), decrease weight (for fuel savings, and increased performance), and improve design capabilities for existing and future components and systems. Advanced metals manufacturing innovation will be critical for the U.S. industrial base to provide cutting-edge capabilities, support the DoD’s need for affordability and be price competitive on the global market. The Institute will work with defense contractors, small businesses, defense acquisition program offices, the defense research and engineering enterprise, and academia to mature and transition manufacturing technologies that make possible enhanced production and repair of DoD platforms, systems, and equipment. The Institute's focus on critical materials manufacturing solutions will enable current and future DoD acquisition programs to achieve critical cost and production goals. Whereas, the specific technical issues that the Institute addresses will vary over time, based on operational needs and technological challenges/opportunities, it's focus will be to affordably deliver manufacturing technologies that have the most benefit to the warfighter.

**ARTICLE 2. DEFINITIONS**

Cash Contribution - Any contribution of funds, services, or materials for which the Recipient is required to pay cash and which would normally be authorized for reimbursement as a direct or indirect charge to the Agreement. Examples include provision of direct labor, raw materials, and associated indirect costs. Cash contribution does not include foregone profit or fee.

Consortium - Any combination of universities, other nonprofit organizations, governmental organizations, for-profit organizations, and other entities whose participation is this Agreement is defined and recognized by Articles of Collaboration.

In-Kind Contribution - Any contribution of equipment, facilities, intellectual property, etc. which is necessary for performance of the statement of work for which a usage or depreciation charge is normally assessed versus reimbursement of the actual costs for acquiring or providing the item. Examples include costs associated with the provision or rental of real property, special tooling or test equipment, and foregone licensing fees for software where the Government has no pre-existing right to free use.

Participant - The term includes all Recipients, Subrecipients, and Consortium members receiving financial assistance under an Agreement.

Party(ies) - The Government and/or Recipient(s) of this Agreement.

Program income - Gross income earned during the period of performance by the recipient that is directly generated by a supported activity or earned as a result of the award. Program income includes, but is not limited to, income from fees for services performed, the use or rental of real or personal property acquired under federally-funded projects, the sale of commodities or items fabricated under an award, license fees and royalties on patents and copyrights, and interest on loans made with award funds. Interest earned on advances of Federal funds is not program income. Except as otherwise provided in program regulations or the terms and conditions of the award, program income does not include the receipt of principal on loans, rebates, credits, discounts, etc., or interest earned on any of them.

Recipient - The legal entity executing this Agreement with the Government, the purpose of which is for the receipt of direct financial assistance for performance of a project or program.

Subaward - An award of financial assistance in the form of money, or property in lieu of money, made under an award by a Recipient to an eligible Subrecipient or by a Subrecipient to a lower tier Subrecipient. The term includes financial assistance when provided by any legal agreement, even if the agreement is called a contract, but does not include the procurement of goods and services which are not an integral part of the research project or program.

Subrecipient - The legal entity to which a Subaward is made and which is accountable to the Recipient for the use of funds provided. The term includes the recipient of financial assistance when provided by any legal agreement, even if the agreement is called a contract, but does not include the supplier of goods and services which are not an integral part of the research project or program.

**ARTICLE 3. PERIOD OF PERFORMANCE**

The period of performance shall commence from the effective date of award through sixty (60) months thereafter. All changes to the period of performance must be included as a modification to this Agreement by the Agreements Officer. If the Recipient desires an extension to the period of performance of this Agreement, the Recipient shall submit a request in writing to the Agreements Officer, in accordance with Section 14.4, Modifications, of Article 14, Administrative Matters.

## ARTICLE 4. STATEMENT OF WORK

The Statement of Work, included as Attachments 1 and 2 hereto, provides a detailed description of the work to be accomplished. Attachment 1 is the institute requirements as described in the LM3I solicitation. Attachment 2 includes the Recipient’s approach to accomplishing the program requirements and goals of the program. All changes to the Statement of Work attachments must be approved by the Government Program Manager and included as a modification to this Agreement by the Agreements Officer. It is recognized that much of the effort to be performed is research and development and that changes to the Statement of Work may be necessary as the work progresses. However, failure to obtain Government approval for Statement of Work changes could result in the unallowability of costs and/or termination of the Agreement.

**ARTICLE 5. DESIGNATED GOVERNMENT OFFICIALS**

5.1. The Agreements Office will be:

DoDAAC: N00014

Office of Naval Research

875 North Randolph St. Suite 1425

Arlington, VA 22203-1995

Wade Wargo, ONR Code 253

(703) 696-0719

e-mail: [wade.wargo@navy.mil](mailto:wade.wargo@navy.mil)

5.2. The Government Program Manager is:

DoDAAC: N00014

Office of Naval Research

875 North Randolph St. Suite 1425

Arlington, VA 22203-1995

Program Manager: Dr. William Mullins, ONR Code 332

(XXX) XXX-XXXX

e-mail: [william.m.mullins@navy.mil](mailto:william.m.mullins@navy.mil)

5.3. The Agreements Patent Office will be:

DoDAAC: N00014

Associate Counsel (Intellectual Property)

Attn: ONR/00CC

875 North Randolph St. Suite 1425

Arlington, VA 22203-1995

5.4. The Agreements Administration Office will be:

Administrative Office      , Code

      (Administrative Office address)

5.5. The Agreements Administration Officer (AAO) will be:

      (name)

Phone No:

Email Address:

5.6. The Government Audit Agency will be:

Defense Contract Audit Agency

      Branch Office

      (address)

Phone No:

5.7. The Payment Office will be:

DFAS Columbus       Entitlement, Code

PO Box

Columbus, OH

**ARTICLE 6. PROGRAM MANAGEMENT**

6.1. The Recipient Points of Contact:

1. Business Point of Contact:

      (name)

      (address)

Phone:

Fax:

Email:

1. Technical Point of Contacts:

      (name)

      (address)

Phone:

Fax:

Email:

6.2. Management Decisions and Technical Direction.

(i) The following management decisions are subject to Government approval from the Agreements Officer or Agreements Administration Officer (AAO) as noted below:

1. Technical and/or funding revisions to the Agreement require approval from the Agreements Officer.
2. Recipients are required to report deviations from budget and program plans, and request prior approvals from the AAO for budget and program plan revisions for the situations listed in DoD Grant and Agreement Regulations (DoDGARs[[1]](#footnote-1)) 32.25(c)(1) through 32.25(c)(9). The budget plan is the financial expression of the program as approved during the award process. The budget includes the sum of the Government and Recipient Cost Share.
3. Initiation of technical projects selected by the Institute require approval from the AAO. The Recipient shall provide to the Government Program Manager and AAO, support for the selection of the project including the objectives, scopes of work, and budget for the proposed technical project as well as the proposed participation of any Foreign Firm or Institution and confirmation on whether the written notice required by Article 10.3.3 has been submitted.

(ii) Technical Direction under this agreement is subject to the following limitations:

(a) Performance of the work for technical projects approved by the AAO is subject to the technical direction of the Government Program Manager designated in this agreement, or duly authorized representative. For the purposes of this article, technical direction includes the following:

(1) Direction to the Recipient which shifts work emphasis between work areas or tasks, requires pursuit of certain lines of inquiry, fills in details or otherwise serves to accomplish the objectives described in the statement of work;

(2) Guidelines to the Recipient which assist in the interpretation of drawings, specifications or technical portions of work description.

(b) Technical direction must be within the general scope of work stated in the agreement or approved technical project. Technical direction may not be used to:

(1) Assign additional work under the Agreement;

(2) Increase or decrease the estimated agreement or approved technical project cost or the time required for Agreement performance; or

(3) Change any of the terms, conditions or specifications of the agreement.

(c) The only individual authorized to in any way amend or modify any of the terms of this agreement shall be the Agreements Officer. When, in the opinion of the Recipient, any technical direction calls for effort outside the scope of the Agreement or approved technical project, or is inconsistent with this special provision, the Recipient shall notify the Agreements Officer in writing within ten working days after its receipt. The Recipient shall not proceed with the work affected by the technical direction until the Recipient is notified by the Agreements Officer that the technical direction is within the scope of the Agreement.

(d) Nothing in the foregoing paragraphs may be construed to excuse the Recipient from performing that portion of the work statement which is not affected by the disputed technical direction.

6.3. Program Management Meetings.

The Recipient Director shall conduct, at a minimum, weekly interactions with the Government Program Manager in order to discuss options, clarify guidance, and provide a regular avenue for the Government to provide Technical Direction.

The Recipient shall also be responsible for establishing a schedule of Program Management meetings, to be held on a bi-annual basis, with the Government Program Manager. The purpose of these meetings will be to discuss technical, programmatic, reporting, financial, and administrative matters that arise during the performance of this Agreement. The Recipient shall notify the Government Program Manager of the established meeting schedule and, in the event of changes to this schedule, shall notify the Government Program Manager 30 days prior to the next scheduled meeting. Participation by the Government Program Manager in such meetings shall not be a substitute for any required Government approvals set forth anywhere in this Agreement. All such approvals must be provided in writing by the designated Government approving official. Reviews may be conducted by telephonic conference call at the discretion of the Government Program Manager. Program Review Presentation materials and the latest Quarterly Progress reports, as called for in Attachment Number 4, shall be provided at these meetings.

6.4. Program Management Planning Process.

6.4.1. Initial Program Plan: The Statement of Work in Attachments 1 and 2 shall serve as the initial program plan.

6.4.2. Annual Program Plan

6.4.2.1. The Recipient, with the Government Program Manager's participation and review, shall prepare an overall Annual Program Plan by/within 90 days and annually thereafter. The Annual Program Plan will be presented and reviewed at an annual site review concurrent with the appropriate Bi-Annual Program Management Meetings, which will be attended by the Recipient and the Government Program Manager, as well as other Government personnel as appropriate.

6.4.2.2 The Annual Program Plan provides a detailed schedule of research activities, commits the Recipient to use its best efforts to meet specific performance objectives, includes forecasted expenditures and describes the milestones. In the event that the milestones are not achieved, the Recipient shall provide to the Government Program Manager an "Adjustment Action Plan" in writing not later than fifteen (15) days following the relevant milestone date. The "Adjustment Action Plan" shall be reviewed at the next scheduled bi-annual meeting. The Recipient will document the accomplishment of all milestones in accordance with the milestone schedule.

6.4.2.3. For any additional or revised milestones that are recommended either in an “Adjustment Action Plan” or the Annual Program Plan, the Recipient shall supply appropriate written documentation to the Government Program Manager with a copy to the Agreements Officer. This documentation letter shall describe the effort, and adjusted targets and adjusted milestone forecasts.

**ARTICLE 7. FINANCIAL ADMINISTRATION AND PAYMENTS**

* 1. Standards for Financial Management Systems.

The Recipient shall utilize its existing financial management systems and additional controls (if needed) sufficient to meet the standards of the DoDGARs Part 32.21.

* 1. Allowable Costs
     1. Allowability of costs for both Government and Recipient cost share shall be determined in accordance with DoDGARs Part 32.27. The Recipient's Cost Share, including any In-Kind contributions, shall comply with and be valued in accordance with DoDGARs Part 32.23. The following clarifications regarding the allowability of costs and/or the valuation of cost share apply to this agreement:
* Costs for the construction of buildings or to buy land are not allowable as a direct cost under this Agreement, regardless of whether using Government or Recipient cost share.
* The total value of any donated land and/or buildings for which title passes to the recipient will not be accepted as cost share, however IAW DoDGARs Part 32.23(g)(2) depreciation or use charges for donated buildings and/or fair rental charges for donated land may be used as Recipient cost share.
* The portion of costs to renovate buildings, i.e., capital improvements to existing buildings and equipment, which are allocable to this agreement may be used as Recipient cost share with prior written approval from the ONR Agreement’s Officer, but may not be charged as direct costs using Government funds.
* Equipment purchased as direct costs under this award must be special purpose equipment necessary for the unique needs of the Institute. Prior written approval to purchase is required from the ONR Agreement’s Officer.
* General purpose equipment may be used as Recipient cost share for that portion directly allocable to this agreement with prior written approval from the ONR Agreement’s Officer, but may not be charged as direct costs using Government funds.
* Pre-award costs are not permitted under this award.

It is herein understood and agreed that Government funds and funds identified as Recipient contributions are to be used solely for Agreement-related costs incurred that are reasonable in nature and amount, and allocable to this Agreement.

7.2.2 In accordance with DoDGARs 22.205(b) and DoD Policy, the payment of fee or profit is unallowable under assistance agreements to either the Recipient or under subawards.

7.3 Audit Requirements & Financial Records.

The Recipient shall ensure that audit(s) sufficient to meet the requirements of DoDGARs Part 32.26 are conducted. The Recipient shall maintain adequate records to account for all funding under this Agreement in accordance with DoDGARS 32.53. The Recipient's relevant financial records, supporting documents, statistical records and all other records pertinent to an award shall be maintained and are subject to examination or audit by the Government for a period of three (3) years after expiration of the period of performance of this Agreement. The only exceptions are as specified under DoDGARS 32.53(b). The Government shall have direct access to sufficient records and information of the Recipient, to ensure full accountability for all funding under this Agreement. Such audit, examination, or access shall be performed during business hours on business days upon prior written notice and shall be subject to the security requirements of the audited Party.

7.4 Funding.

7.4.1 Agreement Amount. The Government and Recipient estimate that the statement of work described under Attachments 1 and 2 are to be accomplished with total funding of      . The Government's share for performance of the work under this Agreement is $70,000,000.00 (cost share      %). The Recipient 's share for performance of work under this Agreement is       (cost share      %), including       which is the estimated value of the Recipient's cash contributions and       which is the estimated value for In-Kind contributions.

7.4.2 Obligated Funding. Only the amount indicated under the "Funds Obligated" line on page 1 of this Agreement and in any subsequent modifications is available for payment and allotted to this award. ONR contemplates making additional allotments of funds during performance of this effort. It is anticipated that these funds will be obligated as appropriated funds become available. Any additional funds obligated to the Agreement will be provided under a modification by the Agreements Officer.

The Recipient agrees to perform work up to the point at which the total amount paid or payable by the Government, considering the Recipient's required cost share, approximates but does not exceed the total amount actually allotted to this agreement. ONR is not obligated to reimburse the Recipient for the expenditure of amounts in excess of the total funds allotted by ONR to this agreement.

7.5 Program Income.

Program Income generated under this LM3I Institute Agreement shall be handled in accordance with DoDGARs 32.24 with the following clarifications. Program income earned during the project period shall be retained by the Recipient and used to finance the Recipient cost share required under the Agreement. However, the Recipient is not required to use program income earned from license fees and royalties for copyrighted material, patents, patent applications, trademarks, and inventions produced under this agreement to finance the Recipient cost share required under the Agreement. The Recipient has no obligation to the Government for program income earned after the end date of the award.

7.6 Payments.

7.6.1 Payment Amounts.

Payments will be made on a cost reimbursable basis, subject to the funds obligated as indicated in paragraph 7.4.2 above. Payments may be requested monthly by the Recipient for reimbursement of the Government’s share of incurred costs. Interim (i.e., partial) payments for costs incurred can be made only so long as the Recipient’s cost share contribution is being provided in accordance with requirements specified in this Article and the Schedule of Cost Sharing, Attachment 3. The final payment can only be made if the ratio or percentage of cost sharing specified in paragraph 7.4.1 has been provided by the Recipient. Unless the Recipient provides documentation for each payment request that demonstrates it has provided its required cost share, individual payments for the Government’s share of the costs will not be authorized by the Agreements Administrative Officer (AAO).

7.6.2 Payment Submission and Processing

a. All payments shall be made by funds transfers to the bank account registered in the System for Award Management (SAM), <https://www.sam.gov> . The Recipient agrees to maintain its registration under the SAM including information necessary to facilitate payment via Electronic Funds Transfer (EFT). Should a change in registry or other incident necessitate the payment to an account other than that maintained in SAM, it is the Recipient’s responsibility to notify the AAO and obtain a modification to this Agreement reflecting the change. The Government shall not be held responsible for any misdirection or loss of payment which occurs as the result of a Recipient’s failure to maintain correct/current EFT information within its SAM registration.

b. Wide Area Work Flow (WAWF) has been designated as the Department of Defense standard for electronic invoicing and payment. To facilitate this effort for Universities and Nonprofit Organizations with awards administered by the Office of Naval Research (ONR) Regional Offices, DoD has established the ONR Electronic Payment System (PayWeb) [(https://services2.onr.navy.mil/http/sysm.onr.navy.mil:7777/payweb/PayWeb.jsp](file:///D:/Documents%20and%20Settings/wade.wargo/Application%20Data/Microsoft/Word/(https:/services2.onr.navy.mil/http/sysm.onr.navy.mil:7777/payweb/PayWeb.jsp)), as an initial entry point to WAWF. If the Recipient participates in the PayWeb system, the Recipient shall submit an electronic request for payment to the AAO at the Administrative Office under Article 5 of the award, using the standard PayWeb processes.

c. Participation in the PayWeb system requires the Recipient to obtain an External Certificate Authority (ECA) certificate from an approved Certificate Authority for access. Operational Research Consultants (ORC) (http://www.eca.orc.com) and VeriSign (http://www.verisign.com/gov/ieca) are approved ECA Authorities. If you have questions or require technical assistance in implementing your certificate, contact the Navy PKI Help Desk at 1-800-304-4636. The Recipient shall Contact the AAO at the Administrative Office under Article 5 of the award for instructions on how to register and use WAWF and PayWeb.

d. Electronic submission of payment requests requires the Recipient to register in WAWF and have the appropriate CAGE code activated. The Recipient’s SAM Electronic Business Point of Contact (EBPOC) is responsible for activating the CAGE code in WAWF by calling 1-866-618-5988. Once the Recipient’s CAGE Code is activated, the SAM EBPOC will self-register in WAWF and follow the instructions for a group administrator. The ONR Regional Offices will assist in this process. The ONR Regional Office is listed as the Administrative Office under Article 5 of the award.

e. If the Recipient does not participate in the ONR PayWeb System, the Recipient shall submit payment requests electronically via Wide Area Work Flow (WAWF). The Recipient shall contact the AAO at the Administrative Office under Article 5 of the award for instructions on how to register and use WAWF.

7.6.3 Limitation of Payments

Failure of either Party to provide its contribution may result in termination of this Agreement, in accordance with the Suspension and Termination Article of this Agreement. If either the Government or the Recipient is unable to provide all of its respective contribution, the other Party may reduce its funding by a proportionate amount. The Recipient intends, and by entering into this Agreement undertakes, to cause its share of funding to be provided. Government and Recipient contributions will be provided under interim payments as detailed in the Schedule of Cost Sharing, Attachment 3. Upon completion or termination of the Agreement, if the Recipient's actual incurred costs are less than the estimated costs set forth in paragraph 7.4.1 above, the Government shall be responsible to pay only an amount proportionate to its share of the estimated costs set forth in paragraph 7.4.1. The Recipient shall promptly return any difference between the Government's share of the actual costs incurred and the amount previously paid by the Government.

7.7 Closeout, Adjustment, Continuing Responsibilities and Collection

7.7.1 Closeout, adjustment and collection of amounts due shall be accomplished in accordance with DoDGARS 32.71 through 32.73 and DoDGARs 22.825. Final payment cannot be made nor can the agreement be closed out until the recipient delivers to the Government all disclosures of subject inventions required by this agreement, a final property report, an acceptable final report pursuant to Attachment Number 4 and all confirmatory instruments. The AAO may make a settlement for any downward adjustment to Federal share of costs after closeout documents are received.

7.7.2 Within ninety (90) days after the end date of the Grant, any overpayment of funds provided by the Agreement shall be remitted to the AAO at the Administrative Office in Article 5. of the Award/Modification document, by check made payable to the US Treasury, DFAS, or Department of Navy.

7.8 Subawards.

The Recipient will include Article 7, suitably modified to identify the parties and payment provisions, in all Subawards, regardless of tier, for experimental, research or development work

**ARTICLE 8. RIGHTS IN TECHNICAL DATA AND COMPUTER SOFTWARE**

* 1. Definitions.

1. "Commercial Computer Software" means software developed or regularly used for non-governmental purposes which has been sold, leased, or licensed to the public or has been offered to the public or will be offered in time to satisfy the delivery requirements or requires minor modification to meet the requirements of this Agreement.
2. "Commercial Item" does not include commercial computer software.
3. "Computer Database" means a collection of data recorded in a form capable of being processed by a computer.

1. "Computer Program" means a set of instructions, rules or routines recorded in a form that is capable of causing a computer to perform a specific operation or series of operations.
2. "Computer Software" means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae and related material that would enable the software to be reproduced, recreated, or recompiled. Computer software does not include computer data bases or computer software documentation.
3. "Computer Software Documentation" means owner’s manuals, user’s manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.
4. "Detailed Manufacturing or Process Data" means technical data that describe the steps, sequences, and conditions of manufacturing, processing or assembly used by the manufacturer to produce an item or component or to perform a process.
5. "Developed" means that an item, component, or process exists and is workable.
6. "Developed Exclusively at Private Expense" means development was accomplished entirely with costs charged to indirect cost pools, costs not allocated to a government contract either as cost incurred or as required cost-sharing, or any combination thereof.
7. "Developed Exclusively with Government Funds" means development was accomplished with no expense by the Recipient.
8. "Development with Mixed Funding" means the development was accomplished at partial expense by the Recipient.
9. "Form, Fit and Function Data" means technical data that describes the required overall physical, functional, and performance characteristics of an item, component or process to the extent necessary to permit identification of physically and functionally interchangeable items.
10. "Government Purpose" means any activity in which the United States Government is a party.
11. "Government Purpose Rights" means the rights to: 1.) use, modify, reproduce, release, perform, display, or disclose technical data, computer software and/or computer software documentation within the Government without restriction; and 2.) release or disclose technical data, computer software and/or computer software documentation outside the Government and authorize persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose that technical data, computer software and/or computer software documentation for United States government purposes. .
12. "Item" includes components or processes.
13. "Limited Rights" means the rights to use, modify, reproduce, release, perform, display, or disclose technical data, in whole or in part, within the Government.
14. "Minor Modification" means a modification that does not significantly alter the non-governmental function or purpose of the software or is of the type customarily provided in the commercial marketplace.
15. "Noncommercial Computer Software" means software that does not qualify as commercial computer software.
16. "Restricted Rights" applies only to noncommercial computer software and means the Government's right to use a computer program with one computer at one time, transfer the program to another agency if all copies are destroyed and the licensor is notified, make copies for archival or modification purposes, modify the software, permit contractors and subcontractors to use or modify the computer software when performing service contracts in support of this Agreement or related agreements or contracts, and permit contractors or subcontractors to use or modify the computer software when performing emergency repairs or overhaul.
17. "Technical Data" means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation but not computer software).
18. "Unlimited Rights" means rights to use, modify, reproduce, perform, display, release, or disclose technical data in whole or in part, in any manner, and for any purpose whatsoever, and to have or authorize others to do so.

8.2 The Recipient grants or shall obtain for the Government the following royalty-free, world-wide, nonexclusive, irrevocable license rights in technical data, computer software documentation, and computer software. The Recipient retains all rights not granted to the Government.

1. **Unlimited Rights.** The Government shall have unlimited rights in technical data that are 1. Data pertaining to an item, component, or process developed exclusively with Government funds; 2. Studies, analysis or similar data produced as an element of performance; 3. Form, fit and function data; 4. Necessary for installation, operation, maintenance, or training purposes; 5. Corrections or changes to Government-furnished data; 6. Publicly available or available to the Government with unlimited rights; 7. Data with expired Government-purpose rights. The Government shall have unlimited rights in 1. Computer software developed exclusively with Government funds; 2. Computer software documentation required to be delivered; 3. Corrections or changes to computer software or its documentation furnished by the Government; 4. Computer Software publicly available or available to the Government with unlimited rights; and 5. Computer software or its documentation with expired restricted or Government-purpose rights.
2. **Government Purpose Rights.** The Government shall have government purpose rights for a period of five years from the execution of this Agreement or modification or exercise of an option pertaining to the technical data or noncommercial computer software, or such other period as may be negotiated, in noncommercial computer software, or technical data that pertains to items, components, or processes developed with mixed funding, unless (i) the Government has unlimited rights in the data in accordance with subparagraph a. or (ii) the Government has been accorded unlimited rights notwithstanding the fact that the data were developed with mixed funding. The Government will not release or disclose noncommercial computer software or data with these rights unless the disclosure is made subject to a nondisclosure agreement or the data recipient is a Government contractor performing under a contract with the DFARS clause 252.227-7025. The Recipient has the exclusive right, including the right to license others, to use the technical data for any commercial purpose during the period in which the Government has these rights. Upon expiration of the period for Government Purpose Rights, the Government shall have Unlimited Rights as set forth in paragraph a. above.
3. **Limited Rights.** The Government shall have limited rights in technical data that pertain to items, components, or processes developed exclusively at private expense and are so marked unless the Government has unlimited rights in accordance with subparagraph a. If technical data in which the Government has these rights are transferred or disclosed outside the Government for the purposes of emergency repair or overhaul, the Government shall require the technical data recipient to destroy the technical data and all copies upon completion of work and to notify Recipient of the destruction. Technical data pertaining to commercial items are assumed to be developed exclusively at private expense.
4. **Restricted Rights**.The Government shall have restricted rights in noncommercial computer software required to be delivered or otherwise provided that was developed exclusively at private expense.
5. **Specifically Negotiated License Rights.** The above standard license rights (a. – d.), including the period of Government Purpose Rights, may be modified by mutual agreement but may not provide the Government with fewer rights than limited rights or restricted rights. The Recipient, its Subrecipients and its suppliers are not required to provide the Government with greater rights, but the Recipient does agree to promptly enter into negotiations with the Agreements Officer after a request to negotiate for greater rights. All technical data and noncommercial computer software in which the Recipient has granted greater rights shall be listed in a license that enumerates or describes the greater rights and is made part of the Agreement.
6. **License Rights in Commercial Computer Software.** The Government shall have the rights provided in the usual license agreement of the supplier of the computer software.

8.3 The Recipient shall not, without written approval of the Agreements Officer, incorporate or deliver any copyrighted data, computer software or computer software documentation in which necessary license rights have not been obtained.

8.4 The Government shall retain its rights in the unchanged portions of any delivered computer software or computer software documentation that the Recipient uses to prepare, or includes in, derivative computer software or computer software documentation.

8.5 The Recipient must identify in an attachment to the Agreement and mark all data, computer software, and computer software documentation with restrictions on use, release, or disclosure. Throughout the performance of this Agreement, the Recipient, its Subrecipients and suppliers that will deliver technical data, computer software, or computer software documentation with less than unlimited rights must have, maintain, and follow written procedures to assure that the restrictive markings are justified and keep records of the procedures. The Government may ignore or, at the Recipient’s expense, correct or strike if a marking is determined to be unjustified. This paragraph does not apply to restrictions based solely on copyright.

8.6 The Recipient shall ensure that the rights afforded its Subrecipients and suppliers under 10 U.S.C. § 2320 and § 2321 are recognized and protected. The Recipient shall use this clause in its subagreements, shall not change the rights provided by this Agreement, and shall not use its power to award contracts and enter into agreements to obtain rights from Subrecipients in technical data, computer software or computer software documentation.

**ARTICLE 9 PATENT RIGHTS**

9.1 Definitions.

a. “Invention” means any invention or discovery which is or may be patentable or otherwise protected under title 35 of the United States Code.

b. “Made” when used in relation to any invention means the conception or first actual reduction to practice of such invention.

c. “Practical application” means to manufacture, in the case of a composition of product; to practice, in the case of a process or method, or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

d. “Subject invention” means any invention of the Recipient conceived or first actually reduced to practice in the performance of work under this Agreement.

9.2 Allocation of Rights.

a. The Recipient may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. § 203. With respect to any subject invention in which the Recipient retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

b. The Recipient will convey to the Office of Naval Research, upon written request, title to any subject invention if the Recipient fails to disclose or elect title to the subject invention within the times specified in section 9.3 of this article, or elects not to retain title;

c. The Recipient will convey to the Office of Naval Research, upon written request, title to any subject invention in any country where the Recipient decides not to file a patent application or continue the prosecution of any patent application.

d. The Recipient will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Recipient fails to disclose the invention within the times specified in section 9.3 of this article. The Recipient’s license extends to its domestic subsidiary and affiliates, if any, within the corporate structure of which the Recipient is a party and includes the right to grant sublicenses of the same scope to the extent the Recipient was legally obligated to do so at the time the Agreement was awarded. The license may be revoked or modified by the Office of Naval Research to the extent necessary to achieve expeditious practical application of the subject invention.

9.3 Invention Disclosure, Election of Title and Filing of Patent Application.

a. Recipient will disclose each subject invention to the Office of Naval Research within two months after the inventor discloses it in writing to Recipient personnel responsible for patent matters. The disclosure shall be in the form of a written report and shall identify the Agreement under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication or other bar under 35 U.S.C. § 102(b), as well as anticipated bars. This obligation is a continuing obligation.

b. The Recipient will notify the Office of Naval Research in writing of its election to retain title within two years of its disclosure to the Office of Naval Research. The period for election of title may be shortened by the Office of Naval Research to no more than sixty days prior to the loss of the right to obtain patent protection in the United States.

c. The Recipient will file its initial patent application on a subject invention within one year after the election to retain title. The Recipient will file in additional countries or international patent offices within 10 months after the U.S. filing date.

d. Requests for extension of time under this section may be granted at the discretion of the Office of Naval Research.

9.4 Recipient’s Actions to Protect the Government’s Interest.

a. The Recipient agrees to execute or to have executed and promptly deliver to the Office of Naval Research all instruments necessary to confirm or establish the rights or title of the U.S. Government in a Subject Invention or to enable the Government to obtain patent protection.

b. The Recipient agrees to require, by written agreement, its employees to send promptly, but not later than three months after the invention is made, a written description of the invention to its personnel who are responsible for the administration of patent matters.

c. The Recipient will notify the Office of Naval Research of any decision not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.

d. The Recipient agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement, “This invention was made with Government support under (identify the agreement ) awarded by the Office of Naval Research. The Government has certain rights in the invention.”

9.5 Subawards.

The Recipient will include this clause, suitably modified to identify the parties, in all subawards, regardless of their tier, for experimental, research or development work. The Subrecipient will retain all rights provided for the Recipient in this clause, and Recipient will not, as part of the consideration for awarding the subaward, obtain rights in the Subrecipient’s subject inventions.

9.6 Reporting on Utilization of Subject Inventions.

The Recipient agrees to submit, on request, periodic reports no less frequently than annually on the utilization of a subject invention or on the efforts at obtaining such utilization by Recipient or its licensee or assignees. The report will include data and information that the Office of Naval Research may reasonably specify.

9.7 Preference for United States Industry.

The Recipient agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any Subject Inventions in the United States unless such person agrees that any products embodying the Subject Invention or produced through the use of the Subject Invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by the Office of Naval Research upon a showing by the Recipient or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

9.8 March-in-Rights.

The Recipient agrees that, with respect to any Subject Invention in which it has acquired title, the Federal agency has the right to require the Recipient, an assignee or an exclusive licensee of the Subject Invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances. If the Recipient, assignee, or exclusive licensee refuses such request, the Federal agency has the right to grant such a license itself if the Federal agency determines that such action is necessary to:

(a) Achieve practical application of the Subject Invention; or

(b) Alleviate health or safety needs that are not being reasonably satisfied; or

(c) Meet requirements for public use that are not being reasonably met; or

(d) Meet the requirements of section 9.7 of this Article.

9.9 Patent Infringement.

The Government does not give its authorization and consent under 28 U.S.C. 1498 for the use or manufacture of any invention described in and covered by a patent of the United States or for the infringement of a copyright in any work protected under the copyright laws of the United States.

9.10 Notice and Assistance Regarding Patent and Copyright Infringement.

a. The Recipient shall report to the Agreement Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this Agreement of which the Recipient has knowledge.

b. In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this Agreement or out of the use of any supplies furnished or work or services performed under this Agreement, the Recipient shall furnish to the Government, when requested by the Agreement Officer, all evidence and information in the possession of the Recipient pertaining to such suit or claim.

c. The Recipient agrees to include, and require inclusion of, this clause in all subawards/subcontracts at any tier for research, or research-related supplies and services, expected to exceed $100,000.00.

**ARTICLE 10. FOREIGN ACCESS TO TECHNOLOGY**

Note: This Article shall remain in effect during the period of performance of the Agreement and for five (5) years thereafter.

10.1. Definitions.

10.1.1. A Foreign Firm or Institution means one or more firms or institutions organized or existing under the laws of a country other than the United States, its territories, or possessions. The term includes, for purposes of this Agreement, any agency or instrumentality of a foreign government and firms, institutions or business organizations which are owned or substantially controlled by foreign governments, firms, institutions, or individuals even if organized or existing under the laws of the United States .

10.1.2. Know-How means all information first produced in the performance of this Agreementincluding but not limited to discoveries, formulas, materials, inventions, processes, ideas, approaches, concepts, techniques, methods, software, programs, documentation, procedures, firmware, hardware, technical data, specifications, devices, apparatus and machines.

10.1.3. Technology means discoveries, innovations, Know-How and Subject Inventions, whether patentable or not, including computer software, recognized under U.S. law as intellectual creations to which rights of ownership accrue**.** The term also includes patents, trade secrets, maskworks, and copyrights developed under this Agreement.

10.2. General.

The Parties agree that research findings and technology developments under the LM3I Institute may constitute a significant enhancement to the national defense and to the economic vitality of the United States. Accordingly, access to important technology developments under this Agreement by a Foreign Firm or Institution must be carefully controlled. The controls contemplated in this Article are in addition to, and are not intended to change or supersede, the provisions of the International Traffic in Arms Regulation (22 CFR Part 121 et seq.), the DoD Industrial Security Regulation (DoD 5220.22-R) and the Department of Commerce Export Administration Regulation (15 CFR Part 770 et seq.)

10.3. Restrictions on Sale or Transfer of Technology to a Foreign Firm or Institution.

10.3.1. In order to promote the national security interests of the United States and to effectuate the policies that underlie the regulations cited above, the procedures stated in subparagraphs 10.3.2. - 10.3.4. below shall apply to any transfer of Technology. For purposes of this paragraph, a transfer includes a sale of the company, and sales or licensing of Technology. Transfers do not include:

(a) sales of products or components; or

(b) licenses of software or documentation related to sales of products or components; or

(c) transfer to U.S. incorporated companies that are owned or substantially controlled by foreign governments, firms, institutions, or individuals that have received prior Government approval as indicated in Attachment Number 2 to this agreement; or

(d) transfer which provides access to Technology to a Foreign Firm or Institution which is an approved source of supply or source for the conduct of research under this Agreement provided that such transfer shall be limited to that necessary to allow the firm or institution to perform its approved role under this Agreement.

10.3.2. The Recipient shall provide timely notice to the Government of any proposed transfers from the Recipient of Technology developed with Government funding under this Agreement to a Foreign Firm or Institution. If the Government determines that the transfer may have adverse consequences to the national security or economic interests of the United States, the Recipient, its vendors, and the Government shall jointly endeavor to find alternatives to the proposed transfer which obviate or mitigate potential adverse consequences of the transfer but which provide substantially equivalent benefits to the Recipient.

10.3.3. In any event, the Recipient shall provide written notice to the Government Program Manager, Agreements Officer, and Agreements Administration Officer of any proposed transfer to a Foreign Firm or Institution at least sixty (60) calendar days prior to the proposed date of transfer. Such notice shall cite this Article and shall state specifically what is to be transferred and the general terms of the transfer. In addition, the notice shall provide the information specified in Article 14.2.3. Within thirty (30) calendar days after receipt of the Recipients written notification, the Agreements Officer shall advise the Recipient whether it consents to the proposed transfer. In cases where the Government does not concur or sixty (60) calendar days after receipt and the Government provides no decision, the Recipient may utilize the procedures under Article 12, Claims, Disputes, and Appeals.

10.3.4. Except as provided in subparagraph 10.3.1. above and in the event the transfer of Technology to a Foreign Firm or Institution is approved by the Government, the Recipient may be required to refund to the Government some or all of the funds paid under this Agreement for the development of the Technology. In the event a transfer of Technology to a Foreign Firm or Institution takes place that is not approved by the Government or that is in violation of the applicable export regulations, the Recipient shall refund all the Government funds paid under this Agreement for the development of the Technology. The Government may, in its sole discretion, waive in whole or in part this refund requirement.

10.4. Subawards.

The Recipient shall include this Article, suitably modified to identify the Parties, in all subcontracts or lower tier agreements, regardless of tier, for experimental, research, or developmental work.

**ARTICLE 11. SUSPENSION AND TERMINATION**

* 1. Suspension.

Upon the Agreements Officers determination that the Recipient is not in compliance with the terms and conditions of this Agreement, the Agreements Officer may suspend the performance of this Agreement. The Agreements Officer shall notify the Recipient of the suspension in writing, setting forth the effective date of suspension, stating the reasons for suspension and providing the Recipient thirty days to provide evidence of compliance with the terms and conditions of this Agreement. Thirty days after notice of suspension, if the Agreements Officer determines that substantial evidence of compliance has not been provided, the Agreements Officer may terminate this Agreement as provided below.

11.2. Termination.

11.2.1. With or without prior suspension, this Agreement may be terminated in whole or in part:

(a) By the Agreements Officer, with or without prior notice, if the Agreements Officer determines that the Recipient is not in compliance with the terms and conditions of this Agreement;

(b) By mutual agreement of the parties, in which case the parties shall agree upon the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated; or

(c) By either signatory party to this Agreement upon sending to the other party written notification setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated. The terminating party must provide such notice at least 30 days prior to the effective date of the termination.

If either party determines in the case of partial termination that the reduced or modified portion of the award will not accomplish the purpose for which the Agreement was executed, either party may terminate the award in its entirety.

11.2.2. In the event that the Agreements Officer terminates the Agreement in accordance with paragraphs 11.2.1. (a) or (b) above, the Agreements Officer shall notify the Recipient in writing of the termination and its effective date.

* 1. Claims Arising from Suspension or Termination.

In the event of suspension or termination, any claim by the Recipient for costs incurred under this Agreement must be received within 6 months after the date of suspension or termination. No termination costs are payable in the event of a termination based on the Recipients failure to comply with the terms and conditions of this Agreement. The Governments total liability for work supported by this Agreement and for any claims, including suspension or termination claims, shall not exceed the federal funds obligated on the Agreement as set forth herein. Allowability of costs under any termination claim shall be determined in accordance with DoDGARs 32.62(c).

# **ARTICLE 12. CLAIMS, DISPUTES, AND APPEALS**

* 1. Recipient Claims.

Recipients shall submit claims arising out of this Agreement to the Agreements Officer. Claims shall specify the nature and basis for the relief requested and shall include all data and relevant facts in support of the claim.

* 1. DOD Component Claims.

Claims by a DOD Component shall be the subject of a written decision by the Agreements Officer.

* 1. Alternative Dispute Resolution (ADR).

The Parties shall endeavor to agree upon an ADR technique (such as discussions, mediation, or mini-trial) appropriate to resolve any dispute, and they shall use ADR to the maximum extent practicable.

12.4. Agreements Officer decisions.

12.4.1. Within 60 calendar days after receipt of a written claim, the Agreements Officer shall:

(a) Prepare a written decision, which shall include the basis for the decision, the relevant facts on which the decision is based, and the identity and address of the cognizant Appeal Authority; or

(b) Notify the Recipient of a date when the decision will be rendered. The notice shall address why additional time is needed and what, if any, additional information is required from the Recipient to adjudicate the claim.

12.4.2. The Agreements Officer’s decision is final, unless appealed. In the event of an appeal, the Parties shall endeavor to use ADR procedures to the maximum extent practicable.

12.5. Formal Administrative Appeals.

12.5.1. Appeal Authority. The Executive Director of the Acquisition Department (ONR Code 02) is the ONR Appeal Authority to decide formal, administrative appeals under this Agreement. If the Executive Director of the Acquisition Department at ONR is unable to serve in this capacity, the Executive Director of ONR (Code 01) shall so serve.

12.5.2. A Recipient may appeal an Agreements Officer’s decision within 90 calendar days of receiving the decision by filing a written notice of appeal with the Appeals Authority and the Agreements Officer.

12.5.3. If the Parties elect to use ADR following the Agreement Officer’s decision, the remaining portion of the 90-day period for filing notice of appeal shall be tolled during the period running from the date the Parties agree in writing to utilize ADR to the date either (1) an ADR decision is issued or (2) one party notifies the other in writing that it is abandoning the ADR process.

12.5.4. Appeal File. Within 30 calendar days of receipt of the notice of appeal, the Agreements Officer shall forward to the Appeal Authority and the Recipient the appeal file, which shall include copies of all documents relevant to the appeal. The Recipient may supplement the file with additional documents it deems relevant. Either Party may supplement the file with a memorandum in support of its position, and the Appeal Authority may request additional information from the Parties.

12.5.5 Decision. The appeal shall be decided solely on the basis of the written record, unless the Appeal Authority decides to conduct fact-finding or an oral hearing on the appeal. Any fact-finding or hearing shall be conducted using procedures that the Appeal Authority deems appropriate.

12.5.6. Representation. A Recipient may be represented by counsel or any other designated representative in any claim, appeal, or ADR proceeding brought pursuant to this section, as long as the representative is not otherwise prohibited by law or regulation from appearing before ONR.

* 1. Non-exclusivity of remedies.

Nothing in this section is intended to limit a Recipient’s right to any remedy under the law.

**ARTICLE 13. LIABILITY**

* 1. Limitation of Liability.

The Government does not waive its sovereign immunity except as otherwise provided by law. The Recipient is solely responsible for any damages which may arise from any suit, action, or claim and for any costs from or incidental to these suits, actions or claims, including but not limited to settlement and defense costs, except to the extent the Government has waived its sovereign immunity under the Federal Torts Claims Act or other express provisions of law. Further, the Recipient agrees that it shall not pursue litigation or any other judicial or administrative recourse against the Government or take any action to enter the Government as party to any suit, action, or claim in which the Recipient may become involved except as otherwise provided herein.

* 1. Environmental Liability.

The Recipient is responsible for achieving compliance with all environmental laws applicable to the work performed under this Agreement, including but not limited to any licenses and permit applications required under Federal, State, or local laws or regulations. The Recipient shall not name the United States, the Department of the Navy (DON), or any other Government agency, instrumentality or employee as an owner, operator or in any other capacity on any license or permit application required under environmental laws unless written consent is first obtained from an authorized agent of the Federal agency or instrumentality to be named.

13.3 Disclosure of Unmarked Data.

The United States Government is not responsible for any disclosure or transfer of proprietary data or software that was not marked by the data owner in accordance with Article 8.

## ARTICLE 14. ADMINISTRATIVE MATTERS

14.1. Property Management.

In accordance with Appendix C of Part 22 of the DoDGARs (DoD 3210.6-R or 32 C.F.R. Part 22), the Recipient shall manage, dispose of, and insure property acquired or furnished under this Agreement in accordance with the guidance promulgated at 32.30 and the sections referenced therein. This section of the DoDGARs sets forth uniform standards for the management, use, and disposition of Recipient-acquired and/or Government-furnished property.

14.1.1 Prior Approval to Purchase Equipment with Federal Funds

In accordance with applicable cost principles and with the express prior written approval of the Agreements Officer, the Recipient may purchase equipment in whole or in part with Federal funds under this Agreement. Prior approval to purchase equipment listed in the Recipient's approved cost proposal and statement of work (Attachment Number 2 to this agreement) is provided by the execution of this Agreement.

14.1.2 Prior Approval to Renovate Buildings with Recipient Cost Share

In accordance with applicable cost principles, Article 7.2, and with the express prior written approval of the Agreements Officer, the Recipient may use Recipient Cost Share to make capital improvements to existing buildings and equipment. Prior approval to use Recipient Cost Share to make capital improvements to existing buildings and equipment listed in the Recipient's approved cost proposal and statement of work is provided by the execution of this Agreement.

14.1.3 Title to Acquired and Furnished Property

(a) Title to approved equipment and other tangible personal property (e.g., fabricated equipment, supplies and other expendable property) purchased under this Agreement shall vest in the Recipient subject to the conditions in DoDGARs 32.34 and 32.35

(b) Title to real property for which the associated costs are specifically identified in Article 7.2.1 as allowable for use as Recipient cost share under the agreement shall vest in the Recipient subject to the conditions in DoDGARs 32.32.

(c) Title to furnished equipment and other tangible personal property identified as federally owned shall remain vested with the Federal Government.

14.2Controlled Information, Foreign Participation, and Publications Approval.

14.2.1 Export-Controlled Items

(a) Definition. “Export-controlled items,” as used in this clause, means items subject to the Export Administration Regulations (EAR) (15 CFR Parts 730-774) or the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120-130). The term includes:

(1) “Defense items,” defined in the Arms Export Control Act, 22 U.S.C. 2778(j)(4)(A), as defense articles, defense services, and related technical data, and further defined in the ITAR, 22 CFR Part 120.

(2) “Items,” defined in the EAR as “commodities”, “software”, and “technology,” terms that are also defined in the EAR, 15 CFR 772.1.

(b) The Recipient shall comply with all applicable laws and regulations regarding export-controlled items, including, but not limited to, the requirement for Recipients to register with the Department of State in accordance with the ITAR. The Recipient shall consult with the Department of State regarding any questions relating to compliance with the ITAR and shall consult with the Department of Commerce regarding any questions relating to compliance with the EAR.

(c) The Recipient's responsibility to comply with all applicable laws and regulations regarding export-controlled items exists independent of, and is not established or limited by, the information provided by this clause.

(d) Nothing in the terms of this section or any resulting agreement adds, changes, supersedes, or waives any of the requirements of applicable Federal laws, Executive orders, and regulations, including but not limited to—

(1) The Export Administration Act of 1979, as amended (50 U.S.C. App.2401, et seq.);

(2) The Arms Export Control Act (22 U.S.C. 2751, et seq.);

(3) The International Emergency Economic Powers Act (50 U.S.C. 1701, et seq.);

(4) The Export Administration Regulations (15 CFR Parts 730-774);

(5) The International Traffic in Arms Regulations (22 CFR Parts 120-130); and

(6) Executive Order 13222, as extended;

(e) The Recipient shall include the substance of this clause, including this paragraph (e), in all subawards and subcontracts.

14.2.2 Security

The Recipient's personnel will not have access to classified United States Government information under this Agreement. If security restrictions should happen to apply to certain aspects of the proposed Agreement, the Agreements Officer will inform the Recipient. The Recipient shall promptly notify the Agreements Officer if information is developed which might, if disclosed, affect the national security adversely. Written concurrence from the Agreements Officer must be obtained prior to disclosure of such information.

14.2.3 Foreign Participation

The Recipient of the award shall be registered as a U.S. organization. U.S. incorporated companies that are owned or substantially controlled by foreign governments, firms, institutions, or individuals may become eligible to be members of the Institute, and sub-awardees of federal support if they are able to demonstrate to the satisfaction of the LM3I Institute Management and the ONR that: 1) their participation is in the best interest of the LM3I Institute, U.S. industry, and U.S. economic development; 2) adequate IP and data protection protocols exist between the U.S. subsidiary and its foreign parent organization; 3) the work is conducted within the U.S.; 4) other conditions that may be deemed necessary by the Institute and the Government to protect U.S. government interests are met, and 5) The Institute and its members are in compliance with 8 U.S.C. 1324a and 8 CFR 274a.2. Prior approval from the Government for foreign participation in technical projects under the Agreement is required as specified in Article 10 of the Agreement.

Some projects within the Institute may be subject to export control laws and regulations. Under no circumstances may foreign entities (organizations, companies or persons) receive access to export controlled information unless proper export procedures have been satisfied. The LM3I Institute Management will address participation by foreign entities (organizations, companies or persons) on a case-by-case basis, and will ensure measures that properly protect Export Controlled information.

14.2.4 Publications

14.2.4.1 The Parties agree to confer and consult with each other prior to publication or other public disclosure of the results of work under this Agreement to ensure that no classified data, proprietary information, military critical technology or other controlled information is released. Prior to submitting a manuscript for publication or before any other public disclosure, each Party will offer the other Party ample opportunity to review such proposed publication or disclosure, to submit objections, and to file applications for letters patent in a timely manner.

14.2.4.2 Publication of results of the research project in appropriate professional journals is encouraged as an important method of recording and reporting scientific information. One copy of each paper planned for publication will be submitted to the Government Program Manager under Article 5 of the Award/Modification document simultaneously with its submission for publication. Following publication, copies of published papers shall be submitted to the Government Program Manager.

14.2.4.3 The Recipient agrees that when releasing information relating to this Agreement, the release shall include a statement to the effect that the project or effort undertaken was or is sponsored by the Department of the Navy, Office of Naval Research.

14.2.4.4 Disclaimer: The Recipient is responsible for assuring that every publication of material (including World Wide Web pages) based on or developed under this award, except scientific articles or papers appearing in scientific, technical or professional journals, contains the following disclaimer: “Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Office of Naval Research.”

14.2.4.5 For the purpose of this clause, information includes news releases, articles, manuscripts, brochures, advertisements, still and motion pictures, speeches, trade association proceedings and symposia.

14.2.4.6 Nothing in the foregoing shall affect compliance with the Security requirements under this Agreement.

14.3 Reporting Requirements.

The Recipient shall submit reports as set forth in the Reporting Requirements, Attachment 4 to this Agreement. All reports and correspondence submitted under this Agreement shall include the Agreement number. A copy of the letter of transmittal shall be provided to the Agreements Office and the Agreements Administration Office.

14.4 Modifications.

Any Party to this Agreement who wishes to modify this Agreement shall confer in good faith with the other signatory parties to determine the desirability of the proposed modification. Modifications shall not be effective until a written modification is signed by the Agreement signatories (or their successors). Administrative modifications may be unilaterally executed by the Agreements Officer.

14.5 Notices.

All notices and prior approvals required hereunder shall be in writing and shall be addressed to the parties identified on the Agreement cover page and in Article 5, Designated Government Officials. Notices shall be effective when received, not when sent. If sent certified or registered mail, postage prepaid, return receipt requested, notice shall be effective on the date the return receipt shows the notice was accepted, refused, or returned undeliverable. Notices can be sent by facsimile transmission or electronic mail (e-mail) but shall be effective only if the sender can produce documentary evidence to establish that the addressee actually received the notice.

14.6 Waiver of Rights.

Any waiver of any requirement contained in this Agreement shall be by mutual agreement of the Parties. Any waiver shall be reduced to writing and a copy of the waiver shall be provided to each Party. Failure to insist upon performance of any of the terms and conditions of the Agreement shall not be deemed a waiver of any rights by any Party.

14.7 Severability.

If any clause, provision or section of this Agreement is held to be illegal or invalid by any court, the invalidity of such clause, provision or section shall not affect any of the remaining clauses, provisions or sections hereof and this Agreement shall be construed and enforced as if such illegal or invalid clause, provision or section had not been contained herein.

14.8 Force Majeure.

Neither Party shall be in breach of this Agreement for any failure to perform caused by any event beyond its reasonable control and not caused by the fault or negligence of that Party. In the event such a force majeure event occurs, the Party unable to perform shall promptly notify the other Party in accordance with paragraph 14.5, Notices, above, and shall in good faith continue performance to the extent reasonably possible.

14.9 Assignment of Claims.

a. Pursuant to the provisions of the Assignment of Claims Act of 1940, as amended, 31 U.S.C. 3727, 41 U.S.C. 15, claims for monies due or to become due to the Recipient from the Government under this Agreement may be assigned to a bank, trust company, or other financial institution, including any such Federal institution. Any such assignment or re-assignment shall cover all amounts payable under this Agreement and not already paid, and shall not be made to more than one party as agent or trustee for two or more parties participating in such financing. All assignment and re-assignment final decisions are subject to review by the cognizant Agreements Administration Officer.

b. Copies of this Agreement, or any plans, specifications, or other similar document relating to work under this Agreement, if marked "TOP SECRET", "SECRET", "CONFIDENTIAL", or "U.S. GOVERNMENT USE ONLY," shall not be furnished to any assignee of any claim arising under this Agreement, or to any person not entitled to receive the same, without the prior written authorization of the Agreements Officer.

14.10 Governing Laws & Regulations.

This Agreement shall be enforced and interpreted in accordance with applicable federal laws and regulations, directives, circulars or other guidance. Federal laws and regulations shall govern in the event of any conflict with the provisions of this Agreement.

14.11 Cargo Preference.

The Recipient agrees that it will comply with the Cargo Preference Act of 1954 (46 U.S.C. 1241), as implemented by Department of Transportation regulations at 46 CFR 381.7, which requires that at least 50 percent of equipment, materials or commodities procured or otherwise obtained with U.S. Government funds under this Agreement, and which may be transported by ocean vessel, shall be transported on privately owned U.S.-flag commercial vessels, if available.

14.12 Preference for U.S. Flag Air Carriers

Travel supported by U.S. Government funds under this agreement shall use U.S.-flag air carriers (air carriers holding certificates under 49 U.S.C. 41102) for international air transportation of people and property to the extent that such service is available, in accordance with the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. 40118) and the interpretative guidelines issued by the Comptroller General of the United States in the March 31, 1981, amendment to Comptroller General Decision B138942.

14.13 Officials Not to Benefit

No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this Agreement, or to any benefit arising from it, in accordance with 41 U.S.C. 22.

14.14 Activities Abroad

The Recipient shall assure that project activities carried on outside the United States are coordinated as necessary with appropriate Government authorities and that appropriate licenses, permits, or approvals are obtained prior to undertaking proposed activities. The awarding agency does not assume responsibility for the Recipient’s compliance with the laws and regulations of the country in which the activities are to be conducted.

14.15 Reporting Subawards and Executive Compensation

The Recipient shall report on first-tier subawards and executive compensation in accordance with the Federal Funding Accountability and Transparency Act (FFATA) of 2006 and associated 2008 amendments. Reporting is required for Agreements equal to or over $25,000. If the initial award is below $25,000 but subsequent Agreement modifications result in a total award equal to or over $25,000, the award will be subject to the reporting requirements, as of the date the award exceeds $25,000. If the initial award equals or exceeds $25,000 but funding is subsequently deobligated such that the total award amount falls below $25,000, the award continues to be subject to the reporting requirements of the Transparency Act.

14.16 Financial Assistance Use of Universal Identifier and System for Award Management Registration (SAM)

Recipient and first-tier subrecipients shall have Dun and Bradstreet Data Universal Numbering System (DUNS) numbers and maintain current registrations in the SAM data base.

14.17 Entire Agreement.

This Agreement with Attachment Numbers 1, 2, 3, 4 and 5 constitutes the entire agreement between the parties concerning the subject matter hereof and supersedes any prior understanding or written or oral agreement relative to said matter.

**ARTICLE 15. CERTIFICATIONS**

15.1 The following Certifications and Representations, which have been executed by the Recipient prior to award of this Agreement and are on file with the issuing office, are hereby incorporated herein by reference: (1) Certification Regarding Lobbying, Appendix A to 32 CFR Part 28 and (2) Representation Regarding an Unpaid Delinquent Tax Liability or Felony Conviction under any Federal Law – DoD Appropriations

15.2 Recipients shall comply with all the requirements of DoDGARs Part 1125, Subpart C, “Responsibilities of Participants Regarding Transactions” (32 CFR Part 25, Subpart C). The recipient shall include a similar term or condition in lower-tier covered transactions as required by DoDGARs Part 1125, Subpart B (32 CFR Part 25, Subpart B).

15.3 By this Agreement or accepting funds under this Agreement, the recipient agrees to comply with the “Government-Wide Drug-Free Workplace (Grants)” requirements specified by DoDGARs Part 26, Subpart B (or Subpart C, if the recipient is an individual) of 32 CFR Part 26 (2004), which implements sec. 5151-5160 of Drug-Free Workplace Act of 1988 (41 USC 701, et seq.).

15.4 By signing this Agreement or accepting funds under this Agreement, the Recipient assures that it will comply with applicable provisions of the following national policies prohibiting discrimination:

a. On the basis of race, color, or national origin, in Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d, et seq.), as implemented by DoD regulations at 32 CFR part 195.

b. On the basis of race, color, religion, sex, or national origin, in Executive Order 11246 (3 CFR, 1964-1965 Comp. p. 339), as implemented by Department of Labor regulations at 41 CFR part 60.

c. On the basis of sex or blindness, in Title IX of the Education Amendments of 1972 (20 U.S.C. 1681, et seq.)

d. On the basis of age, in the Age Discrimination Act of 1975 (42 U.S.C. 6101, et seq.), as implemented by Department of Health and Human Services regulations at 45 CFR part 90.

e. On the basis of handicap, in Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), as implemented by Department of Justice regulations at 28 CFR part 41 and DoD regulations at 32 CFR part 56.

15.5 By signing this Agreement or accepting funds under this Agreement, the Recipient assures that it will comply with applicable provisions of the Clean Air Act (42 U.S.C. 7401 et seq.), as amended and the Clean Water Act (33 U.S.C. 1251 et seq.), as implemented by Executive Order No. 11738 (3 CFR, 1971-1975 Comp. P. 799), and the related regulations of the Environmental Protection Agency (EPA) (40 CFR part 15). Said regulations, Executive Order, and Acts are incorporated in this Agreement by reference.

15.6 By signing this Agreement or accepting funds under this Agreement, the Recipient assures that it will not use any facility on the EPA’s List of Violating Facilities in performing any award that is nonexempt under 40 CFR 15.5, as long as the facility remains on the list. If, in performing this award, the Agreement recipient intends to use a facility that is on the List of Violating Facilities or that the Agreement recipient knows has been recommended to be placed on the List of Violating Facilities, the Agreement recipient shall notify the Agreements Officer and Government Program Manager listed under Article 5 of this Agreement.

15.7 By signing this Agreement or accepting funds under this Agreement, the Recipient assures that it will comply with section 106 (g) of the Trafficking Victims Protection Act of 2000 (22 U.S.C. 7104). If the Recipient or any subagreement recipient (i) engages in severe forms of trafficking in persons or has procured a commercial sex act during the period of time the Agreement is in effect or (ii) uses forced labor in the performance of the Agreement, the Government shall be authorized to terminate the Agreement without penalty.

END OF AGREEMENT

**Statement of Work – Institute Requirements**

**Attachment Number 1**

The President has launched a major, new initiative focused on strengthening the innovation, performance, competitiveness, and job-creating power of U.S. manufacturing called the NNMI. Key design tenets for the NNMI are captured within *National Network for Manufacturing Innovation: A Preliminary Design*, a report issued by the White House National Science and Technology Council on January 16, 2013.[[2]](#footnote-2) In support of this initiative, the Department of Defense (DoD) established the National Additive Manufacturing Innovation Institute (NAMII) that utilizes a multi-agency, “whole of Government,” approach to serve as a national model for innovation and technology advancement. Based upon the success of this Pilot Institute, the President has challenged the Federal Agencies to develop concepts for, and to establish, three more institutes in Fiscal Years (FY) 13-14 to develop and scale critical technologies in the manufacturing readiness level (MRL) 4 to 7 range. This agreement is to establish one of the proposed new institutes: the Lightweight and Modern Metals Manufacturing Innovation (LM3I) Institute.

The LM3I Institute will help to advance the systems engineering approach needed for the design and manufacture of lightweight and modern metal components and structures. This is of great importance to the DoD, and to other government agencies and commercial markets, who recognize the role of lightweight and modern metals in achieving enhanced system performance and weight reductions – leading to greater energy efficiency and lower life-cycle costs. Because of legacy handbook-style engineering practices, however, new structural alloys face tremendous barriers to application. This is largely due to a lack of qualified design guides and certifications. Faced with this, as well as with cost and scale-up challenges in a hyper-competitive global marketplace for metals, U.S. industry chooses production efficiency over the uncertainty of expansion into new applications and markets. This has affected adversely the investments and innovations made into lightweight and modern metals, resulting in a dearth of new metal and alloy development and applications, particularly in lightweight metals that are critical to the U.S. industrial base for both DoD and commercial applications.

To address these technical barriers and market constraints, and to bring about cost effective transition to production of these advanced metals and alloys, the LM3I Institute needs to enable an integration of primary and secondary manufacturing processes to close capability gaps that hurt U.S. competitiveness. The Institute must bring together the resources and developmental potential of the Federal Government, original equipment manufacturers (OEMs) and other manufacturers, metals producers, component suppliers, product designers, academia, state and local governments, and other key stakeholders. This public-private partnership will foster agile manufacturing advances that provide support to both government and commercial needs, developing market focused manufacturing advances supporting product and system performance, affordability, and ultimately increased market demand. These dynamics suggest strongly the need to instill within this collaborative environment an ***integrated approach*** that applies systems engineering principles to foster advanced manufacturing innovations that help to optimize component and system designs and accelerate time to market. The focused collaboration, and the leverage of resources, of the Institute will drive innovations across the MRL 4-7 range to reduce industrial risks. This will help transition these critical new manufacturing capabilities into the U.S. industrial landscape to enable production scale-up and commercialization.

To accomplish this broad engineering challenge, the Institute will utilize the full range of engineering and analytical tools, processes, and principles to improve efficiency and effectiveness of its integrated approach. A keystone supporting lightweight and modern metals development and production is Integrated Computational Materials Engineering (ICME). ICME is the integration of materials information, captured in computational tools, with engineering product performance analysis and manufacturing-process simulation. Employing this powerful emergent field, many groups have demonstrated the possibility of halving the overall time and cost needed to design new alloys and their processing and manufacturing into commercially viable components and systems. The recent successes and future paths for exploitation are discussed in the National Research Council report entitled *Integrated Computational Materials Engineering: A Transformational Discipline for Improved Competitiveness and National Security.*[[3]](#footnote-3) It is also a priority of the Administration’s Materials Genome Initiative, which the President announced on June 24, 2011. The manufacturing and design of lightweight metals into components and systems, however, is not a mere matter of substitution, especially for DoD applications, as detailed in the report of the National Research Council entitled *Application of Lightweighting Technology to Military Vehicles, Vessels, and Aircraft*[[4]](#footnote-4). ICME provides a quantitative framework for the design of the material and its processing for the target application. This turns the materials and processing into design parameters to enable overall engineering design of a lightweight system. Integrating the emerging manufacturing capabilities in metals processing, fabrication and design, increases the speed at which lightweight and modern metals enter the marketplace at competitive price points, thus improving U.S. Manufacturers’ global competitiveness. The intent of the LM3I Institute is to bring together materials designers, materials suppliers, product designers, and manufacturers to collaborate on the design, production, and commercialization of affordable, manufacturable, lightweight systems.

Advanced metals processing and fabrication activities span a wide range, including metal reduction/subtractive technologies; casting, forming, and system assembly operations; additive manufacturing; solid-state joining; laser and next generation welding; thermal drilling; precision machining; metals manufacturing characterization and process modeling; non-destructive evaluation and inspection processes; and end-of-life recycling and recovery. The design, optimization, and implementation of these processes must integrate tools and techniques for considering the materials and their structure-property evolution; the processing operations and their selection, control, and sequencing; and the requirements for the final component or system. LM3I Institute investments can foster focused collaboration between industry, academia, and government across this full range of activities and can be organized more broadly around four key themes:

* Rapidly maturing and demonstrating production scale-up of existing, innovative, lightweight and modern metals;
* Shortening the time necessary to design, integrate, and evaluate novel, affordable, metals, including lightweight alloys and next generation metals into new and existing products;
* Developing more affordable, competitive, automated manufacturing processes relevant to lightweight and modern metals; and
* Developing the tools, skills and knowledge base within the materials design and manufacturing workforce to be able to leverage the latest advances as incorporated by or brought forth by the successes of the LM3I Institute.

The long-term goals of the Institute are to create market expansion and new consumers of products and systems utilizing new, lightweight high performing metals and alloys. The Institute will achieve this through their leadership and partnerships across defense, aerospace, automotive, energy, and consumer products industries.

More detailed Institute requirements follow.

#### 1. Institute Model and Management

The Government seeks a creative model for public/private partnerships that goes beyond what currently exists. The role of the LM3I Institute is to bring government, industry, and academia together in an environment where joint development and commercialization of alloys, processes, and products can occur. As such, it should have an appropriate geographic center of mass for the region(s) and technologies addressed. This may include a coherent, coordinated collection of distributed facilities — where focused, collaborative research, development, design, prototyping, pilot manufacturing, and workforce development can take place. The Institute will be responsible for attracting industry investment to match the Federal investments. The structure of the Institute’s governance model should enable objectivity and independence from undue influence from its partner organizations and institutions. An example of such a structure would include oversight by an independent Board of Directors with strong and balanced industry representation. Further, the Federal Government will have a well-defined participatory role that includes oversight and stewardship of public funds committed to the Institute, participation in technical reviews, development of overall Institute objectives, and providing advice and appropriate supervisory and policy guidelines during its inception and initial growth.

Underpinning the management of the Institute must be a Business Plan and organizational structure that supports the public-private partnership model and the requirement to be financially self-sufficient from dedicated federal funding within a five-year period. This includes a balanced and effective membership structure (tiered membership being one consideration), as well as defined royalty, licensing and other revenue generation methods; effective mechanisms and policies to ensure robust participation by small and medium-sized businesses and enterprises; well-structured and coherent Intellectual Property management across the range of contractual research arrangements; and other strategies and policies needed to support long-term self-sustainability. As a self-sustaining and impactful manufacturing research institute, the LM3I Institute must maintain a persistent focus on effective technology transition and robust and meaningful education/workforce development. It must also develop creative and effective marketing/outreach and communication strategies to support strong relationships/interfaces with external stakeholders (national, regional and local manufacturing organizations, manufacturing associations and other manufacturing and metals research entities) and operate effectively within a broader network of manufacturing institutes. Further, the Institute’s management and partners will have ongoing responsibilities to develop or refine its research, development, and demonstration (RD&D) investment technology thrusts and obtain industrial support (direct or in-kind) for the activities of the Institute; attract new industrial and non-industry partners; actively engage with technical subject matter and educational experts; and facilitate easy access to educational and workforce development opportunities. Lastly, the Institute’s Business Plan must have effective mechanisms to measure progress towards goals and objectives and drive appropriate course corrections. These collective activities, effectively structured and managed within the Institute’s Business Plan, will help ensure self-sustainability and strong, positive, long-term impacts to DoD and the nation.

#### 2. Institute Technical Focus

The Institute’s technical focus shall demonstrate its full awareness of the complex and dynamic landscape of lightweight and modern metals, and maintain a mission focus on generating positive economic impacts through manufacturing innovations for DoD and commercial applications.

The Institute will be responsible for a facility — or a coherent, coordinated collection of facilities — where collaborative research, development, design, prototyping, pilot manufacturing, and workforce development can take place. The Institute will identify, select, fund, and manage projects and activities that advance the manufacturing innovation and capabilities of lightweight and modern metals in the U.S. industrial base.

The Institute’s technical foci and investments shall have direct relevance to national defense and U.S. industrial base economic impact (job creation, spin-off companies, etc.) through technology transition of advanced metals manufacturing capabilities and applications.

#### 3. Technology Transition

The Institute’s business plan and strategy to effect technology transition are critical to its long-term success, financial self-sufficiency, and economic impact. The technology transition strategy will affect the Institute management plan, technical focus areas, intellectual property and data management, and personnel. The Institute’s technology transition activities shall exercise fully its "industrial commons" and needs to be integral in the selection process for the Institute’s technical projects.

There are several metals manufacturing technologies that the DoD has interest in scaling up from MRL 4 to MRL 7, and into production (MRL 8-9). These include, but are not limited to, the manufacturing of low-cost and high performing metal components and assemblies for lightweight ground, aerospace, and maritime systems; applications utilizing advanced alloys (e.g., titanium-, aluminum- and magnesium-based alloys and processing) and novel materials architectures (e.g., metallic foams, cellular structures, etc.) that reduce system weight; and materials for lightweight high-efficiency engines. The DoD also envisions that other government agencies will have similar manufacturing problems of interest for the LM3I Institute.

These manufacturing challenges present practical objectives that can lead to new products for market expansion. They also allow engineers and researchers to address the core technology challenges associated with lightweight design in an integrated manner, using processes including ICME and its associated tools. As an initial example, four core metals manufacturing technology areas of interest for the LM3I Institute are: (1) applications of new/novel metals and alloys; (2) primary metal manufacturing processes; (3) secondary manufacturing processes; and (4) development of products exploiting lightweight and modern metals. It is recognized that a critical component of transition includes education and workforce development. Further, this list is not all-inclusive, and another categorization of the core technologies may offer superior utility.

#### 4. Intellectual Property (IP)

A crucial aspect of the Institute is how the recipient will handle intellectual property. The Institute shall act as a “trusted broker” to maintain confidentiality of the IP and special know-how, and, if needed, assist in the negotiating of IP rights among participants within the Institute. The Institute should make all data they generate readily available to manufacturing researchers to the fullest extent feasible. This should include the instrumentation of production pilots to provide real-time data streams for model development and validation. The structure of the Institute must allow for the open exchange of manufacturing information, such as design tools, processing tools, qualification and certification approaches and potentially fabrication costing methods amongst participants to the greatest extent possible while still incentivizing private investment in innovation. The Institute must provide a process to allow for the protection of IP, yet enable the sharing of pre-competitive best practices.

The Institute Business Plan shall incorporate an IP management approach that addresses clearly the IP issues inherent with collaborations and/or multi-user facilities that engage multiple stakeholders. The situations associated with such collaborations include: open, pre-competitive environments such as academic research and development; closed and strictly proprietary projects; and mixed projects that include tasks of pre-competitive work within an overall proprietary project. The Intellectual Property Management plan used by the Institute shall address:

1. The treatment of confidential information between members (for example, the use of non-disclosure agreements);
2. The treatment of background IP (for example, any requirements for identifying it or making it available);
3. The treatment of inventions made under the project (for example, any requirements for disclosing to the other members, filing patent applications, paying for patent prosecution, and cross-licensing or other licensing arrangements between the members);
4. The treatment of data produced, including software, under the project (for example, any publication process or other dissemination strategies, copyrighting strategy, or arrangement between members), including licensing new learning materials and curriculum to the public under a Creative Commons Attribution License (CC BY) and specific datasets to be delivered in an open, machine-readable format to publically accessible data discovery platforms like [www.OpenEI.org](http://www.OpenEI.org), [www.data.gov](http://www.data.gov) or equivalent open web technologies;
5. Any technology transfer and commercialization requirements or arrangements between the members;
6. The treatment of any intellectual property issues that may arise due to a change in membership of the consortia or team;
7. The handling of conflicts of interest;
8. The handling of disputes related to intellectual property between the members; and
9. The protection of the government’s rights and license to use IP developed under the agreement.

#### 5. Institute Infrastructure

The Institute shall serve as a technical resource for industry in the design, development, and pilot manufacturing of lightweight systems. To accomplish this, the Institute is expected to obtain an infrastructure that provides unique capabilities for the Nation.

#### 6. Institute Education and Workforce Development

Integrative education, training, and workforce development shall be a core, sustained aspect of the Institute’s mission given this area’s importance to the long-term health of the defense and U.S. industrial bases. The Institute must foster active partnerships between academia and industry as well as involving industry associations, professional societies, and economic development entities in these education and development efforts. Institute programs should be linked to, and leverage effectively, regional and national Science, Technology, Engineering and Mathematics (STEM) frameworks. The Institute must house and sustain rigorous educational programs that delineate career pathways with multiple entry and exit points for students and incumbent workers. The Institute will integrate undergraduate research experiences, industry internships, and apprentice programs within its programs. Mechanisms should exist to enable secondary schools, community and technical colleges, and four-year institutions to all participate in the Institute with a strong emphasis on community and technical colleges in preparing the manufacturing technician workforce. Additionally, the Institute will produce programs that inform and provide professional development for teachers and faculty.

#### 7. Institute Personnel

The key personnel of the Institute must have a strong balance of technical expertise in the field of manufacturing metals and of lightweight systems, business development, organizational leadership, and financial management expertise. The quality of the Institute personnel is critical to the operation and sustainment of a successful institute. The Institute needs sufficient staffing and access to manufacturing engineers/experts, product testers/evaluators, designers, systems engineers and personnel with analytical skills to guide users in the development of new manufacturing processes, maintain the infrastructure, and provide hands-on training. In addition, the Institute needs to develop and improve continuously its internal education and workforce training efforts, applying this objective to each project supported by the Institute.

#### 8. Schedule

The period of performance is sixty (60) months. The Institute must develop plans for long-term financial self-sufficiency, without any additional federal funding for management and operation, beyond five years.

It is also important that the Institute have plans for the creation, assessment, and completion of technical projects it undertakes, along with the various educational and training programs.

**Statement of Work – Recipient Approach**

**Attachment Number 2**

**Schedule of Cost Sharing**

**Attachment Number 3**

AGREEMENT N00014-

ATTACHMENT NUMBER 4

REPORTING REQUIREMENTS

1. Financial Reporting

1.1 Financial Status Reports

The Recipient shall submit all financial reporting in accordance with the requirements of Standard Form 425, “Federal Financial Report” (FFR). The FFR and instructions for its use are on the OMB web site at <http://www.whitehouse.gov/omb/grants/grants_forms.html>. All reports shall be submitted on Standard Form 425 and shall be compiled on an [accrual or cash] basis. *The Remarks section of Standard Form 425, field 12 shall include documentation to verify the in-kind contributions from all Recipients and sub-recipients or third parties. The reporting period end date for quarterly reports are 3/31, 6/30, 9/30, or 12/31; therefore, quarterly reports shall be submitted within 30 days following the end of each calendar quarter*. The final Financial Status Report is required 90 days after the completion date for the term of this Agreement and must include in the remarks the location of financial records and a point of contact for the Government to obtain access to the financial records associated with this Agreement. Domestic institutions of higher learning must complete optional fields 11.a through 11.f, “Indirect Expenses,” on the final FFR that it submits after the end of the project period under this award.

Attached to the SF 425 must be a more detailed Funds and Man-hour Expenditure Report that can be cross referenced with any invoices submitted during the reporting quarter. Reports will detail costs and man-hours expended during the reporting quarter for both Government and Recipient Cost Share (including the type, sources (by organization), and amounts.

1.2 Payment Documentation

Payment Documentation - In support of each request for payment (through WAWF) the following information must be supplied to the Government Program Manager with a copy to the Agreements Administration Officer:

* A breakdown of the total requested payment by task;
* A breakdown of the Recipient cost sharing provided (during the period being invoiced as well as the cumulative amount) for each task;

1.3 Audit Reports

The Recipient shall ensure that if an independent auditor is used for this Agreement, copies of any audits conducted shall be provided to the Government. At a minimum, the following should be provided: (1) a certified statement from the independent auditor for the Recipient stating the amount of matching funds applicable for each Government Fiscal Year allotment and a summary of the source of such matching amounts and (2) a certified statement from the independent auditor evidencing that Recipient has complied with all requirements of this Agreement. Upon completion or termination of this Agreement, the Recipient shall provide a list of all audits conducted which reviewed expenditures under this Agreement.

2. Property Reports

A final property report shall be provided in accordance with DoDGARs 32.71(f) and shall be due 3 months after the expiration of the final research period.

3. Invention Reports

The Recipient shall file inventions disclosures in accordance with the time periods and requirements in Article 9.3.a. The Recipient shall also file annual Invention (Patent) Reports as of the close of the fiscal year and at the end of the term for this Agreement. Annual reports are due 60 days after the close of the Government Fiscal Year and final reports are due 3 months after the expiration of the final research period. The Recipient shall use DD Form 882, Report of Inventions and Subcontracts, to file an inventions report. Negative reports are also required.

The disclosure of the Subject Invention to the Office of Naval Research shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication.

In accordance with Article 9.6, the Recipient shall submit, on request, periodic reports no less frequently than annually on the utilization of a subject invention or on the efforts at obtaining such utilization by Recipient or its licensee or assignees.

4. Quarterly Progress Reports

The Recipient shall provide quarterly progress reports that include the following:

* Recipient Progress, Status, and Management Report
* Technical Projects Reports

5. Strategic Business and Marketing Plan

The Recipient shall provide its Strategic Business and Marketing Plan no later than six months following award, then annually thereafter.

6. Presentations from Program Reviews

The Recipient shall provide presentations for the program management reviews that take place bi-annually (twice a year) as required by Article 6. These should be provided at least 72 hours in advance of the review meetings.

7. Final Technical Project Reports

Upon conclusion of a technical project, the Recipient shall submit a Final Project Report addressing the research performed and technical achievements of the project.

8. Annual Program Plan

The Recipient shall provide an Annual Program Plan as required by Article 6.

9. Final Report

On or before the end date of the Agreement in Article 3, the Recipient shall submit a Final Report addressing the technical achievements of the program. The report should provide a synopsis of the research performed and accomplishments made under the Agreement. No proprietary or classified information is to be included in the final report as it is subject to public release.

**DISTRIBUTION REQUIREMENTS FOR REPORTS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Type of Report** | **Government Program Manager**  **(Original)** | **Agreements Officer**  **(Copy)** | **Agreements**  **Admin Officer**  **(Copy)** | **Audit Agency**  **(Copy)** | **ONR Counsel**  **(Copy)** | **Defense Technical Information Center (DTIC) (Copy)** |
| **Financial Status Reports** | 1 |  | 1 |  |  |  |
| **Payment Documentation** | 1 |  | 1 |  |  |  |
| **Audit Reports** |  | 1 | 1 | 1 |  |  |
| **Property Reports** | 1 |  | 1 |  |  |  |
| **Invention Reports** |  |  | 1 |  | 1 |  |
| **Quarterly Progress Reports** | 1 |  |  |  |  |  |
| **Presentations from Program Reviews** | 1 |  |  |  |  |  |
| **Final Technical Project Reports** | 1 |  |  |  |  | 1 |
| **Annual Program Plan** | 1 |  | 1 |  |  |  |
| **Final Report \*** | 1 |  | 1 |  |  | 1 |

All unclassified/unlimited reports can be submitted electronically if an E-mail address is provided in this Agreement.

The addresses (physical and E-mail) for the individuals listed above can be found in Article 5, Designated Government Officials, or below.

Before submitting the Final Technical Project Reports to DTIC, the Recipient should request a Distribution Statement from the Government Program Manager after providing information as to whether the report contains Export Controlled Information or any other type of sensitive information.

The Final Report for the Agreement shall be submitted using Distribution Statement A, which is publically releasable. See Final Report requirements in paragraph 8 of this attachment.

Address for the DTIC is as follows: Defense Technical Information Center, 8725 John J. Kingman Road, STE 0944, Ft. Belvoir, VA 22060-6218. The E-mail address to submit technical reports and final reports to the Defense Technical Information Center is [tr@dtic.mil](mailto:tr@dtic.mil). DTIC prefers .pdf, .tif, and .ps files; however, other formats will also be accepted.

The E-mail address to submit electronic copies of Invention reports to ONR Counsel is [carol.petrosky@navy.mil](mailto:carol.petrosky@navy.mil).

\* A fully completed DD Form 298 must be included with the final report submitted to DTIC so that DTIC can recognize the document as being related to the particular award and properly record its receipt. A copy of the completed DD Form 298 should be provided to the Administrative Agreements Officer.

1. The applicable version of the DoDGARS for this agreement is the version as updated through Change 5, dated 27 AUG 2007. [↑](#footnote-ref-1)
2. <http://www.manufacturing.gov/docs/NNMI_prelim_design.pdf> [↑](#footnote-ref-2)
3. <http://www.nap.edu/catalog/12199.html> [↑](#footnote-ref-3)
4. <http://www.nap.edu/catalog.php?record_id=13277> [↑](#footnote-ref-4)