EPA#: 2011-AFRL/RD&RV-EPA-01

EDUCATION PARTNERSHIP AGREEMENT
BETWEEN

THE DEPARTMENT OF THE AIR FORCE,

AS REPRESENTED BY THE AIR FORCE RESEARCH LABORATORY,

DIRECTED ENERGY AND SPACE VEHICLES DIRECTORATE

and

THE UNIVERSITY OF NEW MEXICO

Article I.  Preamble

The United States of America as represented by the Department of the Air Force, Air Force Research Laboratory, Directed Energy Directorate (hereinafter referred to as “AFRL/RD”) and Space Vehicles Directorate (hereinafter referred to as “AFRL/RV”) at Kirtland Air Force Base (hereinafter referred to as “KAFB”), New Mexico, and the Regents of the University of New Mexico (hereinafter referred to as “UNM”) I University of New Mexico, Albuquerque, NM 87131-0001 (hereinafter jointly referred to as the "Parties") hereby enter into this Education Partnership Agreement (hereinafter referred to as the "Agreement") pursuant to 10 U.S.C. §2194. Within the context of this agreement, “AFRL” has the same meaning as “AFRL/RD and AFRL/RV” collectively. The terms and conditions of this Agreement are set forth as follows.

Article II.  Introduction

The Parties enter into this Agreement in recognition of the importance of education to the future national defense and economic well being of the nation, as well as of the importance of AFRL to the business, industrial, and educational institutions in the United States.

As a defense laboratory, AFRL should encourage the study of science, technology, engineering and mathematics (STEM) and the resulting economic and business development activities that emanate from such studies at all levels of education by entering into Education Partnership Agreements with educational institutions in the United States.

The University of New Mexico, the state’s flagship higher education institution, is a Carnegie Very High Research University and Hispanic Serving Institution. UNM is an educational institution serving women, members of minority groups, and other groups of individuals who traditionally are involved in the engineering and science professions in disproportionately low numbers.

Article III.  Objective

The objective of this Agreement is to facilitate collaborative research opportunities between AFRL and UNM, improve career opportunities for UNM students, advance technological development in the state of New Mexico and expand STEM education outreach initiatives throughout the New Mexico educational system.

The terms of any existing collaborations between AFRL and UNM will not be affected by this Agreement.
Article IV. **Authority**

As provided by Department of Defense Directive 5535.3, paragraph 5.3.1 (21 May 1999), this Agreement is entered into pursuant to the Education Partnership Act, 10 U.S.C. §2194, for the purpose of encouraging and enhancing science, mathematics, and engineering education at all levels of education. Under 10 U.S.C. §2194, AFRL is authorized to:

a. Loan defense laboratory equipment to UNM.

b. Transfer to UNM defense laboratory equipment determined by the laboratory director to be surplus.

c. Make laboratory personnel available to teach science courses or to assist in the development of science courses and materials for UNM.

d. Involve faculty and students in defense laboratory research projects.

e. Cooperate with UNM in developing a program under which students may be given academic credit for work on defense laboratory research projects.

f. Provide academic assistance and career advice to UNM’s students.

Article V. **Obligations**

a. The specific obligations of the Parties are described in Appendix A, Obligations of the Parties.

b. Subject to Article X (Liabilities) and Article XIII (Risk of Loss) below, neither Party shall be obligated to compensate the other Party for costs incurred in carrying out activities defined by this Agreement.

c. Upon identification of a specific activity to be performed under this Agreement, the Parties shall generate a “Task Order” document. This document shall be approved at the AFRL and UNM Program Managers level.

d. Any public announcement of this Agreement shall be coordinated among the Parties to include the 377 ABW/PA Public Affairs Office. UNM shall not use the name of AFRL or the federal government on any product or service that is directly or indirectly related to this Agreement without prior written approval of AFRL. Similarly, AFRL shall not use the name of UNM on any product or service that is directly or indirectly related to this Agreement without prior written approval of UNM. By entering into this Agreement, neither Party directly or indirectly endorses any product or service provided, or to be provided, by the other Party. Neither Party shall in any way imply that this Agreement is an endorsement of any such product or service.

e. Any publications resulting from this Agreement, such as conference papers, invited presentations, and/or scientific journal articles, submitted for public release are subject for review by the AFRL OPSEC office for the purpose of identifying any sensitive information, and instructing UNM to remove the same before it goes to 377 ABW/PA Public Affairs Office. The AFRL Program Manager for this Agreement will facilitate and provide the AFRL OPSEC office and public affairs office the coordination record and AFRL OPSEC forms. The publication review process by 377 ABW/PA is normally completed within ten (10) working days from the date it is submitted to PA. If the review process for any particular publication is anticipated to exceed thirty (30) working days, UNM will be notified by the AFRL Program Manager identified in Paragraph II. Administration a. of Appendix A.

f. UNM faculty and students participating under this Agreement will not be required to obtain security clearances. Research project completion will not require access to classified materials. However, work on certain projects may require UNM’s faculty and students to have access to proprietary information in the possession of AFRL or information for which export is restricted by the Arms Control Act, 22 U.S.C. §2571 et seq., or the
Export Administration Act, 50 U.S.C. §2401 et seq., or the International Traffic in Arms Regulation, 22 C.F.R. §120-25, as military-critical technology, or that is otherwise protected from disclosure by statute, executive order, or regulation. In such cases, to obtain access to this information, faculty members and students must comply with the requirements for disclosure contained in the statutes, executive orders, or regulations, including signing nondisclosure agreements, before a disclosure of such information may be made by AFRL. AFRL will provide UNM’s program manager with notice of such disclosures prior to requiring such signatures.

g. Generally, only United States citizens are eligible to be participating faculty or students under this Agreement. Exceptions will be determined by AFRL on a case-by-case basis, in the sole discretion of AFRL.

h. The Parties’ obligations under this Agreement are contingent upon and subject to availability of funds.

**Article VI. Administration**

The administration of this Agreement and the coordination of specific activities which comprise this program will be the joint responsibility of the designated Program Managers from AFRL and UNM. The Program Managers for each party is documented in Paragraph II. Administration a. and b. of Appendix A.

**Article VII. Deliverables**

Specific deliverables for each Party are described in Appendix A, Obligations of the Parties.

**Article VIII. Value of Contributions**

If requested by either Party, the non-requesting Party will provide a cost estimate of the value of its contribution to this Agreement. Such estimate will include equipment, facilities, and manpower. These estimates are detailed in Appendix A, Obligations of the Parties.

**Article IX. Benefits**

Benefits to the Parties are described in Appendix A, Obligations of the Parties.

**Article X. Liabilities**

To the extent permitted by the respective federal or state laws governing the Parties, each Party shall be responsible for claims brought against it for personal injury or property damage, or for any other type of injury or damage, to the extent such injuries or damage result from the negligence of that Party’s employees, agents, instructors or students. The liability of UNM will be subject in all cases to the immunities and limitations of the New Mexico Tort Claims Act, Sections 41-4-1 et seq. NMSA 1978, as amended.

**Article XI. Patents and Copyrights**

Due to the nature of the activities to be performed under this Agreement, it is not expected that such activities will result in the making of any inventions or creation of any copyrightable works. Nonetheless, each Party shall separately own any invention made solely by its respective employee(s). UNM shall grant the federal government a world-wide, royalty-free, nonexclusive license to make, sell or use, and to have or permit others to do the same, for federal government purposes only, all inventions made under this agreement and owned by UNM. Inventions made jointly by the Parties shall be jointly owned by the Parties. Joint licensing of intellectual property, if any, shall be set out in separate agreements. In the event copyrightable works are created under this Agreement, UNM shall own the copyright in all works created in whole or in part by employees of UNM, and grants in advance a world-wide, royalty-free, nonexclusive license in favor of the federal government conveying the right to use, duplicate or disclose such works in any manner, and to have or permit others to do the same, for federal government purposes only.
Article XII. Force Majeure

Neither Party shall be liable for any unforeseeable event beyond its reasonable control not caused by the fault or negligence of such Party, which causes such Party to be unable to perform its obligations under this Agreement, and which it has been unable to overcome by the exercise of due diligence, including, but not limited to, flood, drought, earthquake, storm, fire, pestilence, lightning and other natural catastrophes, epidemic, war, riot, civil disturbance or disobedience, strikes, labor disputes, or failure, threat of failure, or sabotage, or any order or injunction issued by a court or public agency. In the event of the occurrence of such a force majeure event, the Party unable to perform shall promptly notify the other Party. It shall further use its best efforts to resume performance as quickly as possible and shall suspend performance only for such period of time as is necessary as a result of the force majeure event.

Article XIII. Risk of Loss

UNM shall return any and all federal government-owned equipment loaned under this Agreement to AFRL in good working order, normal wear and tear excepted, at the end of the time period(s) for loan or thirty (30) days prior to end of this Agreement, whichever comes first. While in the care or possession of UNM, the equipment shall be covered by UNM’s insurance program. Any repairs or modification to the government-owned equipment that UNM may find necessary to make shall be performed only after receiving written approval of AFRL. Any such repair or modification shall be at the expense of UNM and shall not affect the title of AFRL to said equipment.

Article XIV. Period of Agreement

a. The Agreement shall commence on the date of the last signature affixed below. Any Party may terminate this Agreement earlier upon delivery of written notice at least thirty (30) days in advance of the prospective termination date. Termination of this Agreement by either Party for any reason shall not affect the rights and obligation of the Parties accrued prior to the effective date of termination of this Agreement. If either Party requests modification of this Agreement, including an extension of this Agreement, the Parties shall, upon reasonable notice of the proposed modification by the Party desiring the change, confer in good faith to determine the feasibility of such modification. Modifications shall not be effective until a written amendment is signed by duly authorized representatives of both Parties. If AFRL or UNM terminates this Agreement, neither party shall be liable for any costs resulting from or related to the termination, including but not limited to, consequential damages or any other costs experienced by the non-terminating party or third parties.

b. The specific term of this agreement is sixty (60) months, commencing on the last signature affixed below.
IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed in duplicate.

REGENTS OF THE UNIVERSITY OF NEW MEXICO:

Sign: [Signature]
Name: DR. DAVID J. SCHMIDLY
Title: President
Date: 4-22-11

AIR FORCE RESEARCH LABORATORY/ DIRECTED ENERGY DIRECTORATE:

Sign: [Signature]
Name: DR. DAVID A. HARDY, SES
Title: Director
Date: 22 April 2011

AIR FORCE RESEARCH LABORATORY/ SPACE VEHICLES DIRECTORATE:

Sign: [Signature]
Name: WILLIAM T. COOLEY, Colonel, USAF
Title: Director
Date: 22 Apr 11
APPENDIX A
OBLIGATIONS OF THE PARTIES

I. Specific Obligations

a. AFRL shall:

1. Encourage its scientist and engineers (S&Es) to establish a dialogue with UNM faculty and students for the exchange of data and guidance in areas of research such as, but not limited to, the following:

1.1) Directed Energy

(1) Gas Lasers
(2) Solid State Lasers
(3) Laser System Integration
(4) Fiber Lasers
(5) High Power Microwaves
(6) Atmospheric Propagation & Compensation of Directed Energy
(7) Acquisition, Tracking and Pointing of Directed Energy
(8) Space Situational Awareness with Directed Energy
(9) Pulsed Power for High Power Microwaves
(10) High Power Microwave Sources
(11) High Energy Beam & Plasma Physics
(12) High Power Microwave System Integration
(13) Directed Energy Effects, Modeling and Simulation
(14) Directed Energy Physics Modeling
(15) Directed Energy Systems and Missions Modeling and Simulation

1.2) Space Vehicles

(1) Space Electronics, Optronics, and Quantum Computing
(2) Spacecraft Power
(3) Spacecraft Materials and Structures
(4) Space Sensors & Optics
(5) Spacecraft Thermal Management
(6) Spacecraft Protection and Radiation Hardening
(7) Satellite Guidance, Navigation, & Control
(8) Satellite Communications
(9) Spacecraft Propulsion
(10) Small Satellite Construction
(11) Space Launch
(12) Space Situational Awareness
(13) Space Environment
(14) Strategic Systems and Responsive Launch
(15) Space System Modeling and Simulation
(16) Operationally Responsive Space
(17) Satellite Operations
(18) Remote Sensing
(19) Uncertainty Quantification of Space Systems
2. Encourage its S&Es to conduct joint research and development projects with UNM personnel in the above areas. These projects may include personnel from other universities.

3. Permit, within mission requirements, its S&Es to serve in their official capacity to teach science and engineering courses at UNM, to assist in the development of UNM science and engineering courses and materials, and to serve as members of Master’s Thesis and Doctoral dissertation committees at UNM.

4. Encourage its S&Es to provide technical, academic and career advice to UNM students.

5. Suggest research projects suitable for UNM graduate/undergraduate student participation. It is understood that the projects should appropriate to the educational level of the student(s) participating.

6. Provide personnel, equipment, and facilities as and when reasonably available to promulgate programs with UNM to allow participating students and faculty the opportunity to work in the laboratory on approved, mutually beneficial research projects.

7. Collaborate with UNM to expand STEM educational outreach programs throughout the state of New Mexico.

8. Collaborate with UNM to promote development of directed energy and space related technological benefits in New Mexico.

9. Loan equipment to UNM as appropriate per Article IV. Any equipment loaned to UNM shall be documented in Annex 1 – Equipment on Loan to UNM, as appropriate.

10. Be responsible for all AFRL employee salaries or other compensations and benefits as necessary under this Agreement.

11. Be responsible for determining and communicating to UNM Program Managers which if any laboratory research and development project on which an UNM student or faculty member works, or is involved, that contains proprietary information or information which is restricted for export by:
(a) the Arms Control Act (22 U.S.C. Section 2401 et seq.),
(b) the Export Administration Act (50 U.S.C. Section 2401 et seq.),
(c) the International Traffic in Arms Regulation (ITAR) (22 C.F.R. 120-25), or
(d) Militarily Critical Technologies.

AFRL will inform UNM students or faculty of their responsibilities under these situations and of how to comply.

12. Be responsible for coordinating access to KAFB and AFRL, its computers network and other infrastructure support, as necessary, and providing students, faculty and staff with written copies of, and training regarding, base safety, environmental, and training procedures and regulations.

b. UNM shall:

1. Encourage its faculty and students to establish a dialogue with the AFRL S&Es for the exchange of data and guidance in areas of research as specified, but not limited to as specified in Paragraph 1. Obligations (a.1.1 and 1.2) of this Appendix.

2. Encourage its faculty and students with appropriate expertise to conduct joint research and development projects with AFRL personnel in the above areas, subject to the terms of a separate written agreement. These projects may include personnel from other universities.
3. Provide, through normal operating policies and practices of the University, access to equipment, facilities, laboratories, libraries, and computing resources for AFRL personnel to conduct joint research and development projects with UNM personnel.

4. Encourage UNM faculty and students to apply for opportunities to work in AFRL on approved/mutually beneficial research projects.

5. Develop and offer curriculum in technology areas relevant to AFRL as specified in Paragraph I. Obligations (a.1.1 and 1.2) of this Appendix and areas compatible with UNM faculty expertise, subject to UNM’s copyright ownership as specified in Article XI.

6. Collaborate with the AFRL to promote development of directed energy and space related technological benefits in New Mexico.

7. Collaborate with the AFRL to expand STEM educational outreach programs throughout New Mexico.

8. Be responsible for all UNM’s faculty, student, and other employee salaries or other compensation and benefits for activities or work performed under this Agreement.

9. Ensure that UNM’s students, faculty and staff comply with all KAFB base access procedures and with AFRL safety and security procedures when on base, provided that such students, faculty, and staff, not UNM, shall be personally responsible and liable for their own actions.

10. When appropriate, provide academic credit toward requirements of a degree program in the case of students working on AFRL research projects.

11. Ensure that UNM faculty, students, and other participating employees abide by all statutes and regulations, as well as Air Force and AFRL rules for security, safety, and general conduct, provided that such students, faculty, and staff, not UNM, shall be personally responsible and liable for their own actions.

12. UNM faculty shall advise and mentor employees of AFRL who are current or potential students at UNM for advanced degree programs of mutual interest.

II. Administration

a. Ms. Casey DeRaad will serve as the partnership Program Manager on behalf of AFRL. She will work with the Program Managers for UNM to identify, select, and prioritize the activities in which the Parties engage pursuant to this Agreement, and will ensure that program activities meet the statutory and regulatory requirements of the Federal Government and the Department of the Air Force. The contact information for the foregoing is set out below:

Ms. Casey DeRaad, AFRL/RD & RV
3550 Aberdeen Ave SE
Kirtland AFB, NM 87117-5776
Voice: 505-846-9352
Email: casey.deraad@kirtland.af.mil
b. Ms. Marla Wood and Dr. Andrew Ross will serve as the partnership Program Managers on behalf of UNM. They will work with the Program Manager for AFRL to identify, select, and prioritize activities in which the Parties engage pursuant to this agreement, and will ensure that program activities meet the statutory and regulatory requirements applicable to UNM. The contact information for the foregoing is set out below:

Ms. Marla Wood  
1 University of New Mexico  
MSC05 3300  
Albuquerque, NM 87131  
Voice: 505 277-2943  
FAX: 505-277-5965  
Email: mwood@unm.edu

Dr. Andrew Ross  
1 University of New Mexico  
MSC05 3070  
Albuquerque, NM 87131  
Voice: 505 277-3129  
Email: aross@unm.edu

III. Deliverables

The parties shall each deliver an annual written report covering significant accomplishments and technical progress during the previous year. The format of the reports shall be jointly determined by the Partnership Program Managers. The annual report will be due within sixty (60) days of the anniversary date of this agreement. The report shall be delivered to each of the Partnership Program Managers identified in Paragraph II Administration a. and b. of this Appendix.

IV. Value of Contributions

a. Upon written request from AFRL, UNM agrees to provide estimates on the value of its contributions to this Agreement. Such estimates may include the following categories:

1) labor (teachers, staff, students, and support personnel) $XXX.XX  
2) facilities $XXX.XX  
3) supplies and equipment $XXX.XX  
4) miscellaneous $XXX.XX  
5) TOTAL $XXX.XX

b. Upon written request from UNM, AFRL agrees to provide estimates on the value of its contributions to this agreement. Such estimates may include the following categories:

1) labor (scientists, engineers, and support personnel) $XXX.XX  
2) facilities $XXX.XX  
3) equipment and supplies $XXX.XX  
4) miscellaneous $XXX.XX  
c. TOTAL $XXX.XX
V. Benefits

a. Benefits to UNM, its students and the State of New Mexico include:

1. A formal vehicle for information exchange with AFRL, the Air Force focal point for directed energy and space technology.

2. A forum for participants to exchange ideas and information that may lead to future teaming arrangements or other formal cooperative agreements for pursuing competitive research projects and grants.

3. Opportunities for further collaboration between AFRL and UNM on various technology transfer projects that will strengthen overall United States competitiveness as well as improve economic development through the application of AFRL technologies to commercial/industrial problems.

4. A stronger academic program that incorporates the results of research projects with AFRL and interactions with AFRL personnel.

5. Access to state-of-the-art AFRL laboratories and engineering technologies for research and study that would not otherwise be available.

6. Opportunities for increased competitiveness of UNM students for internships or employment within AFRL and its industry partners.

b. Benefits to AFRL and the Air Force include:

1. Information and data to AFRL scientists, engineers and managers as a result of interaction with academic and practicing professionals who support UNM.

2. Establishing a nexus of common interest with UNM in directed energy and space related science and technologies, which in time will produce new subject matter experts to perform research with the AFRL.

3. Access to expanded and improved UNM curriculum in technology areas relevant to AFRL.

4. Access to UNM educational and research (non-financial) resources as specifically set forth in this Agreement.

5. Promoting the education and career development of future scientists and engineers.

6. Good will.
ANNEX 1

EQUIPMENT ON LOAN TO THE EDUCATIONAL INSTITUTION
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Total Cost of Loaned Equipment

$  

I have read, understand and accept the terms of the Education Partnership Agreement between AFRL and The University of New Mexico accept possession of and full responsibility for the (loaned) equipment listed above.

Signature of Receiving Agent: ____________________________ Date: ________________

Name of Receiving Agent: ________________________________

I certify that the above listed equipment has been loaned to and received by the Receiving Agent identified above.

Signature of AFRL Property Custodian: ________________ Date: ________________

Name of AFRL Property Custodian: ____________________ Organization: AFRL/RD&RV