#### THE UNIVERSITY OF MICHIGAN

REGENTS COMMUNICATION

Approved by the Regents June 16, 2006

### **ACTION REQUEST**

Subject:

Subcontract Agreement between the University of Michigan

and ElectroDynamic Applications, Inc.

Action Requested: Authorization to enter into Agreement

### Preamble:

A statutory conflict of interest situation was identified by the Division of Research, Development and Administration while reviewing the proposal approval form which then triggered a review by the OVPR Conflict of Interest Review Committee. A plan for management of the possible risks associated with the conflict of interest was then developed by the committee and agreed to by the parties involved in this agreement.

This proposed subcontract agreement ("Agreement") falls under the State of Michigan Conflict of Interest Statute because Professor Brian Gilchrist and Professor Alec Gallimore are both employees of the University of Michigan ("University") and partial owners of Electrodynamic Applications, Inc. The law permits such an agreement provided it is disclosed to the executive officers and approved in advance by a 2/3 vote of the Regents.

# Background:

Dr. Brian Gilchrist, a Professor in Electrical Engineering and Computer Science, and Dr. Alec Gallimore, a Professor in Aerospace Engineering, are the cofounders and co-owners of a small business called ElectroDynamic Applications, Inc. (hereafter, Company), a Michigan corporation. In addition, Dr. Gilchrist is the President and Treasurer and Dr. Gallimore is the Chief Executive Officer and Secretary of the Company. The Company desires to fund a project in the College of Engineering under the direction of Dr. Iain Boyd, a Professor in the Department of Aerospace Engineering.

# Nature of the Agreement:

The Company has applied for and received a Phase II award from the U. S. Air Force under the Small Business Innovation Research (SBIR) Program for the purpose of demonstrating that the plasma sheath formed around a hypersonic vehicle can be manipulated using a combination of applied electronic and magnetic fields. The Company wishes to enter into a subcontract with the University to enable Dr. Boyd and Dr. Michael Keidar, an Assistant Research Scientist in the Department of Aerospace Engineering, to assist in the performance of this funded research.

### **Agreement Terms**:

The terms of the Agreement conform to University policy. The period of performance for the project is two (2) years and the amount of funding support is \$345,203.

# **Impact of the Agreement:**

The Agreement will support an effort by Drs. Boyd and Keidar to use their expertise and University facilities to develop software and other elements of a system to manipulate the plasma sheath around a hypersonic vehicle. The ultimate goal of this project is to develop a system that will enable radio and other electronic communication with a hypersonic vehicle at all altitudes. This will, among other things, eliminate the radio blackout period that occurs upon re-entry of manned orbital vehicles.

### Recommendation:

This matter has been reviewed and approved by the OVPR Conflict of Interest Review Committee and by the Office of the Dean for the College of Engineering. In light of the disclosure made in this document and our finding that the agreement was negotiated in conformance with standard University practices, I recommend that the Board of Regents approve of the University's entering into this Agreement with ElectroDynamic Applications, Inc.

Respectfully submitted,

Stephen R. Forrest

Vice President for Research

**June 2006**