

MEMORANDUM OF UNDERSTANDING  
BETWEEN THE  
DEPARTMENT OF DEFENSE OF THE  
UNITED STATES OF AMERICA  
AND  
THE DEPARTMENT OF NATIONAL DEFENCE OF CANADA  
FOR THE LOAN OF A  
HELMET-MOUNTED PHOTOMETER SYSTEM WITH  
AMBIENT ILLUMINATION TESTER

The Department of Defense of the United States of America (U.S. DoD), hereinafter referred to as the "Providing Participant," and the Department of National Defence of Canada, hereinafter referred to as the "Receiving Participant," recognizing the Agreement between the Government of the United States of America and the Government of Canada Concerning the Establishment of Certain Mutual Defense Commitments, which entered into force August 19, 1994 (Chapeau Agreement), applies to this Memorandum of Understanding (MOU), hereby enter into this MOU for the loan of specified property of the Providing Participant, pursuant to the following provisions:

## ARTICLE I

### DESCRIPTION AND QUANTITY

1.1. The following items (hereinafter referred to collectively as the "Property") will be loaned by the Providing Participant to the Receiving Participant:

Quantity	Description	Part/Stock#	Replacement Value
1 unit	Helmet-mounted Photometer System	n/a	\$2500 (USD)
1 unit	Night Vision Ambient Illumination Tester	n/a	\$2500 (USD)

1.2. None of the Property identified above is intended to be consumed or expended in the course of the testing conducted under this MOU.

## ARTICLE II

### OBJECTIVES

2.1. The overall objective of this MOU is to loan the Property for research, development, test, and evaluation purposes. The specific objectives of this MOU include:

- 2.1.1. Establishment of detailed arrangements between the Providing Participant and Receiving Participant for the loan of the Property.
- 2.1.2. Testing, evaluation, and analysis of the performance of the loaned Property by the Receiving Participant.
- 2.1.3. Provision of a report to the Providing Participant which describes results of the test and evaluation effort conducted by the Receiving Participant.

2.2. The mutual benefits provided under this MOU are that the test results obtained through use of the loaned equipment will enhance the knowledge base for visual modeling techniques and

future design of flight helmet visors, night vision goggles, cockpit lighting, and other aircraft subsystems.

## ARTICLE III

### MANAGEMENT AND RESPONSIBILITIES

3.1. Each Participant will establish a point of contact who will be responsible for coordinating and monitoring the overall test and evaluation effort to ensure achievement of MOU objectives.

3.1.1. For the Providing Participant the point of contact is:  
Dr. Alan Pinkus  
711 Human Performance Wing (711 HPW/RHCV)  
2255 H St., Wright-Patterson AFB, OH 45433  
Phone: 937-255-8767

3.1.2. For the Receiving Participant the point of contact is:  
Mr. Ken McRae  
Head Air Vehicle Section  
National Research Council of Canada  
1200 Montreal Road, Ottawa, Ontario, Canada  
Building M-14  
K1A 0R6  
Phone: 613-991-6908

3.2. Each Participant will also appoint a Test Project Officer, who is responsible for implementing the responsibilities of the Participants as described herein.

3.2.1. For the Providing Participant the Test Project Officer is:  
Dr. Alan Pinkus  
711 Human Performance Wing (711 HPW/RHCV)  
2255 H St., Wright-Patterson AFB, OH 45433  
Phone: 937-255-8767

3.2.2. For the Receiving Participant the Test Project Officer is:  
Mr. Sion Jennings  
National Research Council of Canada  
1200 Montreal Road, Ottawa, Ontario, Canada  
Phone: 613-990-3607

3.3. Responsibilities of the Providing Participant:

3.3.1. Loan of the Property - The Providing Participant will loan the Property until testing and evaluation of the data is complete, or termination of this MOU, whichever comes first. The Providing Participant's Test Project Officer will advise the Receiving Participant's Test Project Officer of any shipping details for the Property, and confirm the receipt of returned Property (or a certificate of its destruction).

- 3.3.2. Property Delivery - The Providing Participant will deliver the Property without charge to the Receiving Participant at: National Research Council of Canada, 1200 Montreal Road, Ottawa, Ontario, Canada. Possession of the Property will pass from the Providing Participant to the Receiving Participant at the time of receipt of the Property. Any further transportation is the responsibility of the Receiving Participant, which will bear such costs in accordance with paragraph 4.3.
- 3.3.3. Condition - The Providing Participant will make its best efforts to ensure the Property is furnished to the Receiving Participant in a serviceable condition suitable for its intended purpose. However, the Providing Participant makes no warranty nor guarantee of fitness of the Property for a particular purpose or use, and the Providing Participant makes no arrangement to alter, improve, adapt, or repair the Property or any part thereof.
- 3.3.4. Documentation - The Providing Participant will furnish the Receiving Participant such operation and maintenance information as is necessary to conduct the test.

#### 3.4. Responsibilities of the Receiving Participant

- 3.4.1. Inspection and Inventory - The Receiving Participant will appoint a representative for the purpose of making an inspection and inventory of the Property at the time of receipt of the Property and again when the Property is returned. The Receiving Participant's Test Project Officer(s) will acknowledge receipt of the Property, advise when the Property is returned upon completion of the tests (or issue a certificate of destruction) in accordance with paragraph 3.4.5., and provide a test report in accordance with paragraph 3.4.6.
- 3.4.2. Installation - The Receiving Participant will be responsible for supplies and services required to install, align, and check out, and otherwise make the Property ready for testing.
- 3.4.3. Training - The Receiving Participant will be responsible for obtaining operation and maintenance training for those personnel assigned to operate and maintain the Property.
- 3.4.4. Operation and Maintenance of the Property - The Receiving Participant will be responsible for all operation and maintenance required on the Property while in its possession.

- 3.4.5. Testing Site - The test(s) will be conducted by or on behalf of the Receiving Participant at:

National Research Council of Canada  
Institute for Aerospace Research  
Flight Research Laboratory  
1920 Research Road  
Ottawa, Ontario, Canada

The Receiving Participant must obtain approval in writing from the Providing Participant if it desires to conduct testing at additional sites.

- 3.4.6. Removal and Return of Equipment; Obligations Concerning Damaged or Returned Property - Upon completion of testing and evaluation, or expiration of the loan period (taking into account any approved extension of the loan period by the Providing Participant, or termination of this MOU pursuant to paragraph 11.3.), whichever occurs first, the Receiving Participant will maintain the loaned Property in good order, repair, and operable condition. Unless the Providing Participant has authorized the Property to be expended or otherwise consumed without reimbursement to the Providing Participant, the Receiving Participant will return the Property to the Providing Participant in as good as condition as received, reasonable wear and tear excepted, or return the Property to the location specified in paragraph 3.3.2., or to another mutually determined site, and pay the cost to restore it. If the Property is damaged beyond economical repair, the Receiving Participant will return the Property to the Providing Participant (unless otherwise specified in writing by the Providing Participant) to the location specified in paragraph 3.3.2., or to another mutually determined site, and pay its replacement value specified in paragraph 1.1., which has been computed pursuant to the Providing Participant's national laws and regulations. If the Property is lost while in the custody of the Receiving Participant, the Receiving Participant will issue a certificate of loss to the Providing Participant and pay the replacement value specified in paragraph 1.1.

- 3.4.7. Test Report - The Receiving Participant will furnish the Providing Participant a test report in accordance with this MOU. The test report will be provided without charge and will be furnished to the Providing Participant no later than 180 days after completion of the testing. The format and content of the report will reflect the Objectives (ARTICLE II) of this MOU.

3.5. This MOU provides only for the loan of Property for research, development, test, and evaluation purposes. Participation in this MOU does not imply any intention by either Participant to participate in any follow-on efforts beyond the scope of this MOU including the

exchange of any additional information. Any other effort(s) will be established through separate arrangements.

#### ARTICLE IV

##### FINANCIAL ARRANGEMENTS

- 4.1. There are no charges for the loan of the above Property or for the test report.
- 4.2. Each Participant will fully bear all costs it incurs for performing, managing, and administering its activities under this MOU.
- 4.3. The Receiving Participant is responsible for all costs of transportation including preparation, packing, and applicable customs charges within its country.

#### ARTICLE V

##### PROPERTY RIGHTS AND RESTRICTIONS

- 5.1. The Providing Participant retains title to all Property loaned under this MOU.
- 5.2. The Receiving Participant will make no changes or alterations to the Property except with the prior written approval of the Providing Participant.
- 5.3. The Property will be loaned only for the purposes set forth in ARTICLE II (Objectives). No other use of the Property by the Receiving Participant is authorized.
- 5.4. Information furnished by the Providing Participant to the Receiving Participant will be used by the Receiving Participant for operation and maintenance of the Property only, except as otherwise stated in this MOU.
- 5.5. Information generated under this MOU may be used by either Participant for defense purposes.
- 5.6. No intellectual property rights, other than as set out in this MOU, are created or conveyed by this MOU. The Participants agree to ensure, by all means available to them, the protection of property rights in the Property, test data, and other information provided or generated under this MOU, whether subject to patent (or like protection) or not.
- 5.7. Any specification, production information, or manufacturing know-how incidentally derived from the performance of the provisions of this MOU will be used and fully protected in accordance with this MOU.

5.8. The Participants agree that this MOU provides the authority for the exchange of information as set forth in paragraphs 3.3.4. and 3.4.7. only.

5.9. All export-controlled information and/or Property furnished by the U.S. DoD, its Contractors, and their subcontractors pursuant to this MOU will be subject to export controls established by the U.S. Government in accordance with the Arms Export Control Act and International Traffic in Arms Regulations.

## ARTICLE VI

### RELEASE OF INFORMATION UNDER LEGISLATIVE PROVISIONS

6.1. Each Participant will take all lawful steps available to it to keep both classified information provided or generated under this MOU and unclassified information that is provided or generated with the condition that it is to be treated in confidence, free from unauthorized disclosure. If it becomes probable that such information may be disclosed to other persons or to a judicial body, immediate notification will be given to the other Participant.

6.2. Such information will be safeguarded in a manner that ensures its proper protection from unauthorized disclosure.

6.3. To assist in providing this protection, the information will be marked with a legend containing the country of origin, a reference to this MOU, the security classification, if any, and if the information is unclassified but is to be treated in confidence, the provisions of release and a statement to the effect that the information is furnished in confidence.

## ARTICLE VII

### SECURITY

7.1. It is the intent of the Participants that the loan carried out under this MOU will be conducted at the unclassified level. No Classified Information or Property will be provided or exchanged under this MOU.

## ARTICLE VIII

### THIRD PARTY TRANSFERS

8.1. The Receiving Participant agrees not to disclose or transfer any Property, test data, or other information provided to it under this MOU to any Third Party without prior written consent of the Providing Participant. The Participants agree not to disclose any information generated under this MOU to any Third Party without prior written consent of the other Participant. For the purposes of this MOU, the term "Third Party" means a government other than the

government of a Participant and any person or other entity whose government is not the government of a Participant. For the purposes of this definition, any person who is not a national of the Government of a Participant is a Third Party; a Contractor or subcontractor incorporated outside of a Participant's country is a Third Party; or a Contractor or other industrial entity organized or incorporated outside of the country of a Participant is also a Third Party.

8.2. Disclosures or transfers requiring authorization under paragraph 8.1. will not be made or authorized unless the Third Party recipient consents in writing that it will not use any such equipment or information for purposes other than those for which it was furnished nor permit any further transfer without the prior written consent of both Participants.

## ARTICLE IX

### LIABILITY

9.1. Claims arising under this MOU will be dealt with under paragraphs 1 and 4 of the Chapeau Agreement.

## ARTICLE X

### SETTLEMENT OF DISPUTES

10.1. Disputes between the Participants arising under or relating to this MOU will be resolved only by consultation between the Participants and will not be referred to a national court, to an international tribunal, or to any other person or entity for settlement.

## ARTICLE XI

### ENTRY INTO EFFECT, AMENDMENT, AND TERMINATION

11.1. All activities of the Participants under this MOU will be carried out in accordance with their national laws and regulations, including their export control laws and regulations. The responsibilities of the Participants will be subject to the availability of funds for such purposes.

11.2. This MOU may be amended or extended by written mutual consent of the Participants.

11.3. This MOU may be terminated at any time:

11.3.1. By mutual consent of the Participants;

11.3.2. By the Receiving Participant on thirty (30) days written notice; or

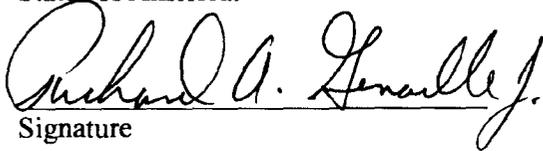
11.3.3. By the Providing Participant at any time.

11.4. Arrangements and responsibilities regarding security and protection of property benefits against unauthorized use, disclosure, or transfer that accrued prior to termination or expiration of this MOU will continue to apply without limit of time.

11.5. This MOU will come into effect on the date of the later signature below, and unless terminated or extended, will remain in effect for one year.

IN WITNESS WHEREOF, the undersigned, being duly authorized by their respective Participants, have signed this MOU in duplicate on the dates indicated below.

For the Department of Defense of the United States of America:

  
Signature

Richard A. Genaille, Jr.

\_\_\_\_\_  
Name

Director of Policy  
International Affairs

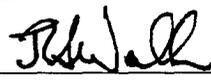
\_\_\_\_\_  
Title

**MAY 28 2009**

\_\_\_\_\_  
Date

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Location

For the Department of National Defence of Canada:

  
\_\_\_\_\_  
Signature

Robert S. Walker

\_\_\_\_\_  
Name

Assistant Deputy Minister  
(Science & Technology)  
\_\_\_\_\_  
Title

**30** June 2009

\_\_\_\_\_  
Date

Ottawa, Ontario, Canada

\_\_\_\_\_  
Location