AGREEMENT

BETWEEN

THE AMERICAN INSTITUTE IN TAIWAN (AIT)

AND

THE TAIPEI ECONOMIC AND CULTURAL REPRESENTATIVE OFFICE IN THE UNITED STATES (TECRO)

FOR COOPERATON ON THE

TROPICAL RAINFALL MEASURING MISSION (TRMM)

Article 1 – Scope

This agreement provides a framework by which AIT, acting through its designated representative, the National Aeronautics and Space Administration (NASA) and TECRO, acting through its designated representative, the National Central University on Taiwan (NCU) will cooperate in areas of mutual interest regarding the measurement of tropical rainfall and the energy exchange of tropical and subtropical regions of the world.

Article II - Authorization

This Agreement is entered into pursuant to the Taiwan Relations Act of April 10, 1979, Public Law 96-8 (22 U.S.C. 3301 et seq.)

Article III - Objectives

Under this Agreement, AIT's designated representative, NASA, and TECRO's designated representative, NCU, will exchange TRMM data and participate in the TRMM Science Team for the mutually beneficial goal of analyzing TRMM validation data.

TRMM is a joint mission between AIT's designated representative. NASA, and the National Space Development Agency of Japan (NASDA), launched in November 1997, for the purpose of measuring tropical rainfall and the energy exchange of tropical and subtropical regions of the world. The instruments onboard include the TRMM Microwave Imager (TMI), the Precipitation Radar (PR), the Visible and Infrared Radiometer System (VIRS), the Clouds and the Earth's Radiant Energy System (CERES), and the Lightening Imaging Sensor (LIS).

AIT's designated representative, NASA, issued NASA Research Announcement (NRA-99-OES-03) for Post-Launch Research Opportunities using data collected by the TRMM instruments. In

response to that announcement, Dr. Tai-Chi C Wang, of TECRO's designated representative, NCU, was selected as a Principal Investigator (PI).

The main objective of Dr. Wang's investigation, entitled, "The Rainfall Characteristics of the Precipitation Systems in Taiwan," will be carrying out quality control and tuning the Z-R relations for the optimistic rainfall product in the Taiwan area using radar, rain gauge and disdrometer data. Additionally, Dr. Wang will study the mesoscale phenomena in the South China Sea using C-Pol polarization data and the ISS profiler data.

Article IV - Responsibilities

Given the mutual interest in this investigation, AIT, through its designated representative, NASA, and TECRO, through its designated representative, NCU, agree to perform the obligations detailed below.

AIT's designated representative, NASA, will use reasonable efforts to:

- A. Provide TRMM data sets as requested by TECRO's designated representative, NCU, in connection with the NRA-related investigation, through the Distributed Active Archive Center (DAAC) maintained by AIT's designated representative, NASA. The data will be provided according to the established data policies of AIT's designated representative, NASA; and
- B. Provide for the archiving and distribution of scientific results derived from the investigation by TECRO's designated representative, NCU, through the DAAC.

TECRO's designated representative, NCU, will use reasonable efforts to:

- A. Perform the scientific analyses and investigations consistent with the NCU proposal submitted to and approved by AIT's designated representative, NASA on June 26, 2000;
- B. Provide copies to NASA of the final research report on the investigation within three months of the end of the study;
- C. Provide copies to AIT's designated representative, NASA, of any publications based on research using the TRMM data sets; and
- D. Support the attendance of the PI sponsored by TECRO's designated representative, NCU, at TRMM Science Team meetings, as requested by AIT's designated representative, NASA.

Article V - Points of Contact

The principal points of contact in conducting this cooperative activity are detailed below.

For AIT's designated representative, NASA:

Dr. Ramesh Kakar

TRMM Program Scientist

Office of Earth Science (Code YS)

NASA Headquarters 300 E Street, SW Washington, DC 20546 Phone: (202) 358-0240 Fax: (202) 358-2771

Email: rkakar@hq.nasa.gov

For TECRO's designated representative, NCU:

Dr. Tai-Chi C Wang

Institute of Atmospheric Physics

National Central University Chungli, Taipei 32054

Taiwan

Phone: 886-3-4277-151-5529 Fax: 886-3-4256-841

Email: taichi@rainbow.atm.ncu.edu.tw

Article VI - Consultation/Settlement of Disputes

AIT and TECRO (hereinafter referred to as "the Parties") authorize the Points of Contact named above to resolve any question that arises concerning the implementation or interpretation of this Agreement. Should the Points of Contact be unable to come to agreement, then the issue will be referred to the Parties for consultation and resolution.

Article VII - Financial Arrangements

AIT's designated representative, NASA, and TECRO's designated representative, NCU, will each bear the costs of discharging their respective responsibilities, including travel and subsistence of personnel and transportation of all equipment and other items for which each is responsible. Further, it is understood that the ability of AIT's designated representative, NASA, and TECRO's designated representative, NCU, to carry out their obligations is subject to the availability of appropriated funds. Should any of the designated representatives named in this Agreement encounter budgetary problems which may affect the activities to be carried out under this Agreement, the designated representative encountering the problems will notify and consult with the other designated representatives as soon as possible.

Article VIII - Invention and Patent Rights/Joint Invention

Nothing in the Agreement shall be construed as granting or implying any rights to, or interest in, patents or inventions of the Parties, or their designated representatives, or the contractors or subcontractors of the designated representatives.

In the event that an invention is jointly made by employees of AIT's designated representative, NASA and TECRO's designated representative, NCU, or their contractors or subcontractors, during the implementation of this Agreement, the designated representatives of the Parties shall consult and agree as to the responsibilities and costs of actions to be taken to establish and maintain patent protection for such invention and on the terms and conditions of any license or other rights to be exchanged or granted by or between the designated representatives, contractors or subcontractors.

Article IX - Intellectual Property Rights and Transfer of Goods and Technical Data

- A. AIT, through its designated representative, NASA, and TECRO, through its designated representative, NCU, support the widest practicable and appropriate dissemination of information resulting from activities undertaken pursuant to this Agreement.
- B. Nothing in this Agreement shall be construed as granting or implying any rights to, or interest in, patents or inventions of the Parties designated representatives or of their contractors or subcontractors.
- C. AIT, through its designated representative, NASA, is obligated to transfer only those technical data and goods necessary to fulfill its responsibilities in implementation of this Agreement in accordance with national laws and regulations.
 - 1. In the event NASA finds it necessary to transfer technical data in carrying out its responsibilities in implementation of this Agreement that are proprietary or subject to export control, and for which protection is to be maintained, such technical data will be marked with a notice indicating that they shall be used and disclosed by TECRO, or its designated representative only for the purposes of fulfilling their responsibilities under this Agreement, and that the technical data shall not be disclosed or retransferred to any other entity without prior written permission of the furnishing party. NASA agrees to abide by the terms of any similar such notice from TECRO, or its designated representative, and to protect any such marked technical data from unauthorized use and disclosure. Should either party, or their designated representatives, have need to transfer a furnishing party's, or their designated representatives' marked data or identified goods to institutions acting on its behalf, or its contractors and/or subcontractors, it shall first obtain the written approval of the furnishing party, or its designated representatives, as applicable, and shall obtain the written agreement of the institution, contractor or subcontractor to abide by the terms of the furnishing party's or designated representative's marking or notice. Nothing in this Agreement requires NASA to transfer technical data or goods contrary to national laws and regulations relating to export control or control of classified data.

2. The Parties, their designated representatives, and their contractors or subcontractors are under no obligation to protect any unmarked technical data or unidentified goods. However, all technical data and goods transferred under this Agreement shall be used exclusively for the purpose of fulfilling the responsibilities of the Parties and their designated representatives under this Agreement.

Article X - Rights in Resulting Data

Data generated under this agreement will be reserved to the Principal Investigators for scientific analysis and first publication rights for a period of time (generally not more than 1 year) beginning with receipt of the data and any associated data in a form suitable for analysis. The Parties and their designated representatives may also have access to, and use of, the data and any associated data during the agreed-upon period, but such access and use will not prejudice the first publication rights of the investigators.

Final results of the experiments will be made available to the scientific community through publication in appropriate journals or other established channels as soon as practicable and consistent with good scientific practice. In the event such reports or publications are copyrighted, the Parties and their designated representatives shall have a royalty-free right under the copyright to reproduce, distribute, and use such copyrighted work for their purposes.

Article XI - Disclaimer of Warranty

AIT's designated representative, NASA, does not warrant the availability or suitability for any particular use of the information or data covered by this Agreement.

Article XII - Ownership of Equipment

Any equipment provided by NASA pursuant to this agreement shall remain the property of NASA. Any equipment provided by the National Central University shall remain the property of the National Central University.

Article XIII - Liability

The Parties agree that, with respect to activities undertaken pursuant to this Agreement, neither party, nor its designated representatives, shall make any claim against the other with respect to injury or death of its own or its contractors' or subcontractors' employees or with respect to damage of any kind to or loss of its own or it contractors' or subcontractors' or investigators' property caused by either party, or the party's designated representatives, contractors, subcontractors, or investigators, whether such injury, death, damage, or loss arises through negligence or otherwise, except in the case of willful misconduct. In the event of third party claims for which the Parties or their designated representatives may be liable, the Parties or their

designated representatives (as appropriate) will consult promptly to determine an appropriate and equitable apportionment of any liability and on the defense of any such claims.

This cross waiver of liability shall not be applicable to claims between a party and its related entities (e.g. designated representatives, contractors and subcontractors), claims made by a natural person, or intellectual property claims.

Article XTV- Customs/Taxes/Immigration

In accordance with its laws and regulations, each Party, through its designated representative(s) shall facilitate free customs clearance and waiver of all applicable customs duties and taxes for equipment and related goods necessary for the implementation of this Agreement. In the event that any customs duties or taxes of any kind are nonetheless levied on such equipment and related goods, such customs duties or taxes shall be borne by the designated representative of the party of the territory levying such customs duties or taxes. The obligation of the Parties' designated representative to ensure duty-free entry and exit of equipment and related goods is fully reciprocal.

Each of the Parties' designated representative shall facilitate the movement of persons and goods necessary to comply with this Agreement into and out of its territory, subject to its laws and regulations.

Article XV - Choice of Law

U.S. Federal law governs this Agreement for all purposes, including, but not limited to, determining the validity of the Agreement, the meaning of its provisions, and the rights, obligations and remedies of the parties.

Article XVI - Term of Agreement

The term of this Agreement will be three years from the date of the last signature. This Agreement may be renewed or amended by mutual consent or it may be terminated by one Party providing written notice of its intention to the other Party and contemporaneously, to the other Party's designated representative, at least three months before the desired termination date.

Article XVII - Continuing Obligations

The obligations of the Parties and their designated representatives set forth in the Agreement concerning Liability and Intellectual Property Rights and Transfer of Goods and Technical Data, shall continue to apply after the expiration or termination of this Agreement.

For the American Institute in Taiwan	For the Taipei Economic and Cultural Representative Office in the United States
Name J. Suhry	Name Lyushun Shen
Deputy Manager, Director	Deputy Representative
<u>3/06/02</u> Date	4/2/02 Date