
AGREEMENT
BETWEEN
THE AMERICAN INSTITUTE IN TAIWAN
AND
THE TAIPEI ECONOMIC AND CULTURAL REPRESENTATIVE OFFICE
IN THE UNITED STATES
FOR COOPERATION IN THE
MICRO-PULSE LIDAR NETWORK AND THE
AEROSOL ROBOTIC NETWORK

Article I – Scope

This Agreement provides a framework by which the American Institute in Taiwan (AIT), through its designated representative, the National Aeronautics and Space Administration (NASA), and the Taipei Economic and Cultural Representative Office in the United States (TECRO), through its designated representative, the Taiwan Environmental Protection Administration (TEPA), will cooperate in areas of mutual interest in aerosol measurements.

Article II – Objectives

Under this Agreement, AIT and TECRO, through their respective designated representatives, NASA and TEPA, will cooperate for the mutually beneficial goal of significantly improving the understanding of the properties and concentrations of aerosols and their relationship on global and regional scales. This effort will be accomplished by establishing one or more lidar and/or sun photometer stations at mutually agreed sites, and encouraging scientific collaboration between scientists from the territories of the authorities represented by AIT and TECRO to develop research programs based on the Taiwan network of Micro-Pulse Lidar Network (MPLNET) and Aerosol Robotic Network (AERONET) data along with aerosol and cloud data available from the global MPLNET and AERONET databases.

Lidars profile the vertical distribution of cloud and aerosol layers by transmitting pulses of laser light into the atmosphere. The time-of-flight between pulse transmission and reception, along with the speed of light, is used to determine the height of layers. The first eye-safe, semi-autonomous lidar system for full-time atmospheric profiling was developed at NASA Goddard Space Flight Center (GSFC). This lidar is referred to as the Micro-Pulse Lidar (MPL). The MPLNET was created in 2000. The aim of MPLNET is

to acquire long-term observations of aerosol and cloud vertical profiles at unique geographic sites collocated with sunphotometers in the NASA AERONET or similar projects. Sun photometers are used to measure vital column aerosol optical properties and water vapor, and are used to calibrate the MPL data. AERONET provides globally distributed observations of spectral aerosol optical depths, and precipitable water in geographically diverse aerosol regimes. NASA is establishing a global network of MPL and sun photometer instruments in cooperation with partner agencies in other territories.

Article III – Responsibilities

Given the mutual interest in aerosol measurements, AIT and TECRO agree to take steps to oblige their designated representatives NASA and TEPA, respectively, to perform the obligations detailed below.

1. AIT, through its designated representative, NASA, will use reasonable efforts to:
 - A. Provide a long-term collaboration with TECRO, through its designated representative TEPA, for continuous operation at mutually-agreed sites;
 - B. Provide technical installation support, major maintenance, training, and spare parts for the TEPA lidar and/or sun photometer systems;
 - C. Provide automated data retrieval of all real-time and processed cloud and aerosol data for all participants in the MPLNET and AERONET program via an open, global database accessible through the internet at: <http://mplnet.gsfc.nasa.gov> and <http://aeronet.gsfc.nasa.gov/>;
 - D. Provide, upon mutual agreement, upgrade of publicly available MPLNET and AERONET analysis software for TECRO's designated representative TEPA's servers, the database browser developed by NASA, and any software to be used in the operation of the stations;
 - E. Encourage scientific collaboration between scientists from the territories of the authorities represented by AIT and TECRO in the area of sun photometry, aerosol research, cloud research, and related sciences;
 - F. Cooperate with investigators globally on ground-based lidar and sun photometer observations for clouds and aerosols;
 - G. Assist in integration of ground-based aerosol concentrations and properties for EOS-era validation of satellite aerosol retrievals as a part of the international federated sun photometer network, AERONET, by making available NASA and/or NASA-contractor personnel for mutually-agreed time periods; and
 - H. Provide assistance with interpreting laser-safety requirements for MPL use on Taiwan.

2. TECRO, through its designated representative, TEPA, will use reasonable efforts to:
- A. Provide utilities (electricity and communications), security, and housing for the station(s) at mutually-agreed location(s);
 - B. Provide personnel necessary for the installation, full-time operation and nominal maintenance of the station(s);
 - C. Use the equipment for network operations only as intended under this Agreement;
 - D. Encourage scientific collaboration between scientists from the territories of the authorities represented by AIT and TECRO in the area of sun photometry, aerosol research, and related sciences;
 - E. Return the network equipment to AIT's designated representative NASA, at NASA's expense, on a twelve-month rotation for maintenance and calibration; and
 - F. Cooperate with the international team of AERONET investigators on ground-based lidar and sun photometer observations for clouds and aerosols.
 - G. TECRO's designated representative, TEPA, has responsibility for laser safety at all MPLNET sites within Taiwan, and will provide adequate laser-safety protocols in accordance with the requirements of the authorities represented by TECRO.

Article IV - Points of Contact

The principal points of contact in conducting this collaborative activity are detailed below:

For AIT's designated
representative, NASA

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For TECRO's
designated representative, TEPA

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Department of Environmental Monitoring and
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TEPA Technical POC

Dr. Neng-Huei (George) Lin.
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Article V - 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 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 VI - Financial Arrangements

AIT's designated representative, NASA, and TECRO's designated representative, TEPA, 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, TEPA, 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 VII - 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, TEPA, 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 VIII - Transfer of Goods and Technical Data

The Parties and their designated representatives are obligated to transfer only such technical data (including software) and goods necessary to fulfill their respective responsibilities under this Agreement, in accordance with the following provisions, notwithstanding any other provisions of this Agreement:

1. All activities under this Agreement shall be carried out in accordance with the applicable laws and regulations of the respective territories of the authorities represented by the Parties, including their export control laws and regulations and those pertaining to the control of classified information.
2. The transfer of technical data with regard to interface, integration, and safety shall normally be made without restriction, except as provided in paragraph 1 above.
3. All transfers of goods and proprietary or export-controlled technical data are subject to the following provisions:

- A. In the event a Party's designated representative, or its related entity (including but not limited to contractor, subcontractor, sponsored entity, cooperating entity) finds it necessary to transfer goods or to transfer proprietary or export-controlled technical data, for which protection is to be maintained, such goods shall be specifically identified and such proprietary or export-controlled technical data shall be marked.
- B. The identification for goods and the marking on proprietary or export-controlled technical data shall indicate that the goods and proprietary or export-controlled technical data will be used by the receiving Party's designated representative or related entities only for the purposes of fulfilling the responsibilities of the receiving Party's designated representative under this Agreement, and that the identified goods and marked proprietary technical data or marked export-controlled technical data shall not be disclosed or retransferred to any other entity without the prior written permission of the furnishing Party's designated representative or its related entity.
- C. The receiving Party's designated representative or related entity shall abide by the terms of the notice and protect any such identified goods and marked proprietary technical data or marked export-controlled technical data from unauthorized use and disclosure.
- D. The designated representatives of the Parties to this Agreement shall ensure that their related entities are bound by the provisions of this Article related to use, disclosure, and retransfer of goods and marked technical data.

4. All goods exchanged in the performance of this Agreement shall be used by the receiving Party's designated representative or related entity exclusively for the purposes of the Agreement. Upon completion of the activities under the Agreement, the receiving Party's designated representative or related entity shall return or, at the request of the furnishing Party's designated representative or its related entity, otherwise dispose of all goods and marked proprietary technical data or marked export-controlled technical data provided under this Agreement, as directed by the furnishing Party's designated representative or related entity.

Article IX – Rights in Resulting Data

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, AIT's designated representative, NASA and TECRO's designated representative, TEPA, shall have a royalty-free right under the copyright to reproduce, distribute, and use such copyrighted work for their purposes.

Article X – Ownership of Equipment

Equipment provided by AIT's designated representative NASA pursuant to this Agreement shall remain the property of NASA. Equipment provided by other entities pursuant to this Agreement shall remain the property of the other parties. All equipment exchanged under this Agreement is provided as-is with no warranty as to fitness or use for a particular purpose.

Article XI - Release of General Information to the Public

Releases may be made by AIT, TECRO, and their designated representatives for their own portion of the program/cooperation as desired. Insofar as participation of another entity is involved, the entity seeking to release information will seek to consult with the other prior to any releases, consistent with the laws and policies under which they operate.

Article XII - Personnel Exchange

AIT's designated representative NASA and TECRO's designated representative, TEPA, shall facilitate the movement of persons and goods necessary to comply with this Agreement into and out of their facilities, subject to the laws and regulations under which they operate.

Subject to the laws and regulations under which it operates, TECRO's designated representative TEPA shall facilitate provision of the appropriate entry and residence documentation for the personnel from the territory of the authorities represented by AIT who sojourn to their facilities in order to carry out the activities under this Agreement

Article XIII - Disclaimer of Warranty

Neither AIT nor its designated representative, NASA, warrants the availability or suitability for any particular use of the information or data covered by this Agreement.

Article XIV – 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 their own or their 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 XV - Indemnification

In addition, TECRO's designated representative, TEPA, agrees to indemnify and hold AIT, its designated representative, NASA, and its contractors and subcontractors harmless from any third party claim, judgment, or cost arising from the injury to or death of any person, or for damage to or loss of any property arising as a result of its use of NASA equipment provided for activities expressly or implicitly covered under this Agreement.

Article XVI- Customs/Taxes/Immigration

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

Each of the Parties' designated representative(s) shall facilitate the movement of persons and goods necessary to comply with this Agreement into and out of the territory of the authorities the Party represents, subject to the laws and regulations of that territory.

Article XVII - Term of Agreement

The term of this Agreement will be ten 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 six months before the desired termination date.

Article XVIII - Continuing Obligations

The obligations of the Parties and their designated representatives set forth in this Agreement concerning Article VIII, *Transfer of Goods and Technical Data*, Article IX, *Rights in Resulting Data*, and Article XIV, *Liability* 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

Barton J. Selwyn
Name

Wesley J. ...
Name

Managing Director
Title

Deputy Representative
Title

4/17/07
Date

7/13/07
Date