ANNEX 9

то

MEMORANDUM OF AGREEMENT NAT-I-845

BETWEEN THE

AMERICAN INSTITUTE IN TAIWAN

AND THE

TAIPEI ECONOMIC AND CULTURAL REPRESENTATIVE OFFICE IN THE UNITED STATES

INSTRUMENT FLIGHT PROCEDURES

ARTICLE I-PURPOSE

This Annex to Memorandum of Agreement NAT-I-845 (the Agreement) sets forth the terms and conditions and framework under which the American Institute in Taiwan (AIT), through its designated representative, the Federal Aviation Administration (FAA), may provide instrument flight procedure services to the Taipei Economic and Cultural Representative Office in the United States (TECRO), through its designated representative, the Civil Aeronautics Administration (CAA).

ARTICLE II - SCOPE OF WORK

Program tasks to be carried out under this Annex are summarized in Technical Implementing Arrangement Number 1 to this Annex. Additional program tasks may be identified in future Technical Implementing Arrangements.

ARTICLE III - RESPONSIBILITIES OF AIT

The responsibilities of AIT under this Annex are:

To make available, through its designated representative, the FAA, personnel to provide instrument flight procedure services to include en route procedures, Standard Instrument

.

٠.

Departures (SID)/Departure Procedures (DP), Standard Terminal Arrival Routes, and Standard Instrument Approach Procedures in Taiwan at such locations and times as may be requested by the CAA, to the extent mutually agreed upon by AIT's designated representative, the FAA, and TECRO's designated representative, the CAA.

ARTICLE IV - RESPONSIBILITIES OF TECRO

The responsibilities of TECRO under this Annex are:

A. To provide guidance for and to facilitate consultations between and among representatives of FAA, TECRO, and CAA, and other appropriate agencies; and

B. To ensure that its designated representative, the CAA, provide all arrangements, services, and information defined in Technical Implementing Arrangement Number 1, and any future Technical Implementing Arrangements to this Annex.

C. To ensure appropriate transfer of funds to AIT for reimbursable activities as defined in Technical Implementing Arrangement Number 1, and any future Technical Implementing Arrangements for this purpose.

ARTICLE V – FINANCIAL PROVISIONS

The designated AIT office for billing and reimbursements is as follows:

American Institute in Taiwan ATTN: Deputy Managing Director 1700 N. Moore Street, Suite 1700 Arlington, VA 22209

ARTICLE VI - AIT POINT OF CONTACT

The designated office at AIT for information and inquiries, other than scheduling flight

inspection services under this Annex is:

American Institute in Taiwan ATTN: Deputy Managing Director 1700 N. Moore Street, Suite 1700 Arlington, VA 22209

ARTICLE VII - INTELLECTUAL PROPERTY CONSIDERATIONS

No intellectual property or confidential business information considerations are expected to arise in conjunction with activities to be undertaken pursuant to this Technical Implementing Arrangement Number 1.

ARTICLE VIII - EFFECTIVE DATE, AMENDMENT AND TERMINATION

This Annex and the Technical Implementing Arrangement Number 1 shall enter into force on the date of the last signature hereinafter, may be amended by written agreement of the Parties at any time, and will remain in force until terminated in accordance with Article VI of the Agreement, NAT-I-845.

ARTICLE IX - <u>AUTHORITY</u>

AIT and TECRO agree to the provisions of this Agreement as indicated by the signature of their duly authorized representatives.

AMERICAN INSTITUTE IN TAIWAN

BY: Und g. J.

TITLE: Deputy Managing Director

DATE: 6/6/03

TAIPEI ECONOMIC AND CULTURAL **REPRESENTATIVE OFFICE IN THE** UNITED STATES

BY

ut her. TITLE DATE:

TECHNICAL IMPLEMENTING ARRANGEMENT NUMBER 1

. .

то

ANNEX 9

то

NAT-I-845

BETWEEN THE

AMERICAN INSTITUTE IN TAIWAN

AND THE

TAIPEI ECONOMIC AND CULTURAL REPRESENTATIVE OFFICE IN THE UNITED STATES

INSTRUMENT FLIGHT PROCEDURES

ARTICLE I—DESCRIPTION OF SERVICES

A. The American Institute in Taiwan (AIT), through its designated representative, the Federal Aviation Administration (FAA), may provide specialists to the Civil Aeronautics Administration (CAA), the designated representative of the Taipei Economic and Cultural Representative Office in the United States (TECRO), to perform any of the following instrument flight procedure services:

1. Feasibility studies of proposed instrument flight procedures;

- 2. Assessments of existing instrument flight procedures;
- 3. Development of instrument flight procedures;
- 4. Periodic review and maintenance of instrument flight procedures; and

5. General advice and guidance on the development, design, and maintenance of instrument flight procedures.

B. For purposes of this Agreement, instrument flight procedures include en route procedures, Standard Instrument Departures (SID)/Departure Procedures (DP), Standard Terminal Arrival Routes, and Standard Instrument Approach Procedures.

ARTICLE II—<u>REQUISITIONING PROCEDURES</u>

۰.

A. The FAA technical operational point of contact for requesting or obtaining information under this Technical Implementing Arrangement is:

Federal Aviation Administration National Flight Procedures Office, AVN-100 P.O. Box 25082 Oklahoma City, OK 73125

Telephone(405) 954-3027Facsimile(405) 954-4236

B. The delivery address for packages is:

Federal Aviation Administration National Flight Procedures Office, AVN-100 6500 S. MacArthur Blvd, ANF#1 Oklahoma City, OK 73169

ARTICLE III—<u>TERMS AND CONDITIONS</u>

All FAA instrument flight procedure services provided under this Technical Implementing Arrangement shall be subject to the following terms and conditions:

A. TECRO's designated representative, the CAA, shall provide the information and data described in this Paragraph A and all other information and data AIT's designated representative, the FAA, may request in support of the services provided under this Technical Implementing Arrangement or future Technical Implementing Arrangements. All information and data shall be provided in the English language, with TECRO's designated representative, the CAA, bearing the cost of any translation of the materials into English.

1. Technical data and charts in a condition and form suitable for accurately determining the location and elevation of natural and man-made obstacles and terrain features.

2. The following detailed aeronautical charts of the areas to be covered by the instrument flight procedure to be developed:

a. Charts to a scale of approximately 1:50,000 shall be provided for the area within an approximately ten (10) nautical mile radius of the airport, heliport, and all other air navigation facilities to be incorporated in the instrument flight procedure design; and

• •

b. Charts to a scale of approximately 1:250,000 and 1:500,000 for the area within an approximately fifty (50) nautical mile radius of the airport, heliport, and all other air navigation facilities to be incorporated in the instrument flight procedure design.

3. Latitude and longitude coordinate to the nearest 1/100th of a second and in WGS-84 or equivalent datum of all en route navigation facilities, including associated components, to be incorporated in the instrument flight procedures design.

4. The Comprehensive Aeronautical Information Publication, which shall include the following information:

a. Location of the primary and secondary altimeter reference source (International Civil Aviation Organization (ICAO) identifier or latitude and longitude in WGS 84 or equivalent datum) used in the instrument flight procedure.

b. Location of available terminal weather reporting stations (ICAO identifier or latitude and longitude in WGS-84 or equivalent datum) and the hours of operation.

c. The ICAO identifier for the controlling air traffic facility for the instrument flight procedure and the point of contact for the facility.

5. Using the format set forth in Figure 1 to this Annex, for each instrument jlanding system (ILS), microwave landing system (MLS), transponder landing system (TLS), global navigation satellite system (GNSS) precision approach, global positioning satellite (GPS) non-precision approach system, and any other terminal approach systems to be designed and developed:

a. The following runway data (if the instrument flight procedure is for an

airport):

i. Latitude and longitude coordinates to the nearest 1/100th of a second and in WGS-84 or equivalent datum of (a) the runway thresholds at the centerline, (b) runway stop ends at the centerline, (c) any displaced thresholds, and (d) the point at which a line from the glideslope/elevation antenna intersects the runway centerline at a ninety degree (90°) angle (the aiming point);

ii. Runway length to the nearest foot and any displaced distances rest foot;

to the nearest foot;

iii. Runway front and back course magnetic compass headings to the nearest1/100th of a degree and the magnetic variation applied;

iv. Mean sea level elevation to the nearest foot at the runway threshold, runway stop end, and any displaced thresholds; and

v. Runway aircraft category and wheel height group.

b. Using the format set forth in Figure 2 to this Annex, the following landing site data (if the instrument flight procedure is for a heliport/vertiport):

i. Latitude and longitude coordinates to the nearest 1/100th of a second and in WGS-84 or equivalent datum of (a) the heliport reference point (HRP), (b) dimensions of the landing site, and (c) the radius of the landing site if the site is circular;

ii. Mean sea level elevation to the nearest foot at the landing site HRP and landing site corners; and

iii. Preferred ingress and egress course routing for landing sites.

6. Using the format set forth in Figure 1 to this Annex, for each ILS, MLS, TLS, or GNSS precision approach to be designed and developed, the latitude and longitude coordinates to the nearest 1/100th of a second and in WGS-84 or equivalent datum of the following navigation aid components:

- a. The localizer/azimuth antenna;
- b. The glideslope/elevation antenna;
- c. The on airport DME antenna;
- d. The marker beacon antennas; and
- e. The compass locator antennas.

÷

7. Using the format set forth in Figure 1 to this Implementing Arrangement, for each ILS, MLS, TLS, or any other terminal approach system to be designed and developed, the following navigational aid component data:

a. The distance from all navigational aid component antennas to the runway centerline or extended runway centerline as measured along a line extending from the centerline at a ninety-degree (90°) angle to the component.

b. For all navigational aid component antennas located on the runway centerline or extended runway centerline, the distances from these antennas to the approach and stop ends of the runway.

c. For all navigational aid component antennas that are offset from the runway centerline or extended runway centerline, the distance, as measured along a line parallel to the centerline or extended centerline, from the antenna to a point located at a ninety degree (90°) angle from the runway threshold and stop end.

d. The mean sea level to the nearest foot at:

i. The base of each antenna of the ILS, MLS, or TLS; and

ii. The point along the runway centerline at the aiming point.

e. The distance from the aiming point to the localizer antenna as measured along the runway centerline and extended runway centerline.

f. The magnetic compass heading from the front course runway threshold at the centerline to each navigational aid component antennas.

g. The monitoring source, category, and hours of monitoring for each navigational aid.

B. The instrument flight procedures developed by AIT's designated representative, the FAA, shall conform to the U.S. Standard For Terminal Instrument Procedures (TERPs) and associated orders or criteria, or, upon written request by TECRO's designated representative, the CAA, to Procedures For Air Navigation Services – Aircraft Operations (PANS-OPS) published by ICAO.

C. TECRO's designated representative, the CAA, shall be solely responsible for complying with any environmental requirements under the laws and regulations of Taiwan that are applicable to the instrument flight procedure services provided by AIT's designated representative, the FAA, under this Annex and its appendices.

D. TECRO's designated representative, the CAA, shall, at its own expense, be responsible for:

1. Taking all actions necessary to adopt an instrument flight procedure developed by AIT's designated representative, the FAA, under this Implementing Arrangement and its appendices, including actions regulating the airspace affected by an instrument flight procedure;

2. Flight checking the instrument flight procedure before approving its operational use;

3. Providing notice through appropriate publications and other means to aircraft operators, airmen, the public, and, if required, to ICAO of the adoption by TECRO's designated representative, the CAA, of any instrument flight procedure developed by AIT's designated representative, the FAA, under this Technical Implementing Arrangement and future Technical Implementing Arrangements;

4. Providing any engineering, survey, or other assistance required to support the instrument flight procedures services by AIT's designated representative, the FAA; and

5. Publishing air navigation charts and other appropriate materials showing the instrument flight procedures adopted by TECRO's designated representative, the CAA.

ARTICLE IV—<u>STATUS OF THE PERSONNEL OF AIT'S DESIGNATED</u> <u>REPRESENTATIVE, THE FAA</u>

AIT's designated representative, the FAA, shall assign personnel to perform the services agreed upon in this Technical Implementing Arrangement. The personnel assigned may be the employees of AIT's designated representative, the FAA, another U.S. Government agency, or a contractor to AIT's designated representative, the FAA. FAA or other U.S. Government personnel assigned to any activity shall while in Taiwan be AIT consultants. The supervision and administration of the personnel shall be in accordance with the policies and procedures of AIT's designated representative, the FAA. The assigned personnel shall perform at the high level of conduct and technical execution required by AIT's designated representative, the FAA.

ARTICLE V - FINANCIAL PROVISIONS

A. TECRO shall transfer to AIT reimbursement costs incurred by AIT's designated representative, the FAA, in providing the flight inspection services under this Implementing Arrangement and an administrative overhead charge, subject to the following terms and conditions:

٠.

1. Payment of bill shall be due within fifty (50) days from the billing date by the FAA to AIT, at the address specified in Article V of Annex 9. All payments shall include a reference to the assigned agreement/implementing arrangement number, and billing number. TECRO payments shall be made in U.S. dollars.

2. In the event that payment is not made within fifty (50) days from the date of billing, U.S. Treasury Department regulations prescribe and require AIT's designated representative, the FAA to assess late payment charges-i.e., interest, penalties, and administrative handling charges – in subsequent billings. These late charges shall be assessed for each additional thirty (30) day period, or portion thereof, that payment is not received. TECRO, or its designated representative, the CAA, shall pay any such late charges.

3. In the event of a termination by either party under ARTICLE VII of this Implementing Arrangement, TECRO's designated representative, the CAA, shall pay all costs incurred by AIT's designated representative, the FAA, for flight inspection services provided to TECRO's designated representative, the CAA, prior to the date of such termination.

B. Charges for flight inspection services provided under this Implementing Arrangement shall be billed upon completion or termination of an individual flight inspection mission. AIT bills shall contain a reference to the Implementing Arrangement Number <u>NAT-I-845-9-1</u> and billing number <u>NB3555TW8</u> (which are the numbers assigned by AIT's designated representative, the FAA, to identify this Implementing Arrangement and which shall be referred to in all related correspondence), and shall be supported with a summary of charges. All bills shall be forwarded by AIT to TECRO at the following address:

> Taipei Economic and Cultural Representative Office 4201 Wisconsin Avenue, NW. Washington, D.C. 20016-2137

C. Reimbursements shall be forwarded to AIT at the following address:

American Institute in Taiwan ATTN: Deputy Managing Director 1700 N. Moore Street, Suite 1700 Arlington, VA 22209

ARTICLE VI - LIABILITY

۰.

A. TECRO and its designated representative, the CAA, on behalf of the authorities represented by TECRO, agree that the FAA and AIT assume no liability for any claim or loss arising out of advice or other assistance provided or work performed by them under this Agreement or its annexes and appendices, or arising out of any action or decision by TECRO's designated representative, the CAA, or its current or former officers, employees or contractors, in relation to such advice, assistance or work.

B. TECRO and its designated representative, the CAA, on behalf of the authorities represented by TECRO, agree to defend any suit brought in any jurisdiction other than the United States or pay for the defense of any suit brought in the United States against the Government of the United States, the FAA, AIT, or any instrumentality or current or former officer or employee of the United States, or AIT, arising out of any advice or other assistance provided or work performed under this Agreement or its annexes and appendices. TECRO and its designated representative, the CAA, on behalf of the authorities represented by TECRO, further agree to hold the United States, or AIT, harmless against any claim by Taiwan, or by any agency thereof, or by third persons for personal injury, death, or property damage arising out of any advice or other assistance provided or work performed under this Agreement under this Agreement or its annexes and appendices.

C. Exception: The conduct of an officer or employee of the U.S. that results in personal injury, death, or property damage shall not be considered advice or other assistance provided or work performed under this Agreement for purposes of the obligation to hold the United States, the FAA or any instrumentality or current or former officer or employee of the United States harmless against any claim by Taiwan, or by any agency thereof, or by third persons for personal injury, death, or property damage undertaken by TECRO's designated representative, the CAA, under Article VII.A above if that conduct is determined to be outside the scope of the officer or employee's employment. Scope of employment shall be determined by the law of the forum, including choice of law rules, if the litigation is brought in a court of the

United States; or, if brought in a court outside the United States, according to the law of the District of Columbia.

ARTICLE VII—<u>ENTRY INTO FORCE AND TERMINATION</u>

This Technical Implementing Arrangement shall enter into force on the date of the last signature and shall remain in force until terminated in accordance with Article VIII of the Agreement of Annex 9.

ARTICLE VIII - <u>AUTHORITY</u>

AIT and TECRO agree to the provisions of this Technical Implementing Arrangement and Annex 9 as indicated by the signature of their duly authorized representatives.

AMERICAN INSTITUTE IN TAIWAN

TAIPEI ECONOMIC AND CULTURAL REPRESENTATIVE OFFICE IN THE UNITED STATES

BY:

Chartiba Domity Rop. DATE:

BY: Barba J.c

TITLE: Deputy Managing Director

DATE: 6/6/03



Figure 1: TLS/ILS/MLS /GNSS Data Requirements

NAT-I-845-9-1t Page 10 .

NAT-I-845-9-1t Page 11



.

Figure 2: Heliport/Vertiport Data Requirements