

**法規名稱：**IMPLEMENTING ARRANGEMENT #2 PROVISION OF OPERATIONS, MAINTENANCE, AND RECONDITIONING SUPPORT FOR THE WSR-88D RADAR SYSTEM TO THE AGREEMENT FOR TECHNICAL COOPERATION IN SCIENTIFIC AND WEATHER TECHNOLOGY SYSTEM SUPPORT BETWEEN THE TAIPEI ECONOMIC AND CULTU

**簽訂日期：**民國 87 年 05 月 12 日

**生效日期：**民國 87 年 05 月 12 日

#### ARTICLE I-SCOPE

This Implementing Arrangement describes the technical activities to be undertaken by the American Institute in Taiwan (AIT) and its representative, the Office of Systems Operations (OSO) of the National Weather Service (NWS) of the National Oceanic and Atmospheric Administration (NOAA). It provides for the provision of operations, maintenance, and reconditioning support for the Weather Surveillance Radar (WSR-88D) System between the Central Weather Bureau (CWB) of Taiwan, the designated representative of the Taipei Economic and Cultural Representative Office in the United States (TECRO), and NOAA/NWS/OSO. All Services will be provided on a reimbursable basis.

#### ARTICLE II-AUTHORIZATION

The activities described in this Implementing Arrangement will be carried out under the general terms and conditions established by the Agreement between TECRO and AIT for technical cooperation in scientific and weather technology systems support. This Implementing Arrangement is hereby attached to that Agreement and becomes part of the Agreement.

#### ARTICLE III-SERVICES

The operations, maintenance, and reconditioning support for the WSR-88D System is directed toward three general areas:

- \*operations, maintenance, and engineering documentation;
- \*hardware and software enhancements/modifications; and
- \*reconditioning support.

These support activities will include the following tasks:



Task #1-Provision of Operations, Maintenance, and Engineering Documentation to CWB NOAA/NWS will provide CWB with applicable updates to operator handbooks and documentation related to the WSR-88D on a reimbursable basis. In addition NOAA/NWS will provide CWB with applicable updates to technical manuals and engineering data required for on-site maintenance of the WSR-88D. Manuals, updates, and documentation will be in the English language.

Task #2-Provision of Hardware and Software Enhancements/Replacements to CWB NOAA/NWS will provide CWB, at cost, with applicable hardware and software enhancements developed and/or procured for the WSR-88D. NOAA/NWS will provide English language installation and modification instructions and notes. This includes adaptation data and maps, diagnostic software, and operating and applications software.

Task #3-Provision of Reconditioning Support to CWB

On a reimbursable basis, NOAA/NWS shall provide CWB with replacement and depot repair of line replaceable units for WSR-88D hardware. To receive the same level of logistics and reconditioning support as is provided the NWS systems, the CWB must purchase, as a minimum complement of on-site spares, the same parts contained in the NWS Initial Spares Support List. In addition, due to the time required to ship and return failed parts and the subsequent negative impact on the spares pipeline, the CWB shall, at a minimum, purchase a complete set of radio frequency dependent spare parts to be used by CWB as on-site spares. NOAA/NWS will provide CWB with all consumables centrally stocked by NWS.

Conditions for Providing Service

In order for NOAA/NWS/OSO to provide the services listed, the following conditions must be met by the host of the radar being supported:

A.All customs clearances must be coordinated and all taxes and

- costs for shipment of WSR-88D equipment, parts, and consumables to and from Taiwan must be paid;
- B.the system (s) must be maintained in a standard configuration. Should the HEXRAD(s) configuration violate the NWS/DOD/FAA baseline, the NWS will not be required to support the non-configuration designated items. In addition, the NWS will be unable to guarantee that standard configuration LRUs, software, and modifications to the system will operate properly;
- C.NOAA standard, peculiar, and common support equipment must be purchased;
- D.the same parts contained in the NWS Initial Spares Support List must be purchased as a minimum complement of on-site spares ; a complete set of radio frequency dependent spare parts must be purchased as on-site spares;
- E.prescribed and standard NWS maintenance practices, procedures, policies, and schedules must be followed; and
- F.a point of contact to establish map overlay requirements, in particular to determine what features will be included in the coverage area for Taiwan, must be provided.

#### ARTICLE IV-FINANCIAL PROVISIONS

In accordance with the Agreement, TECRO will reimburse AIT for all costs incurred by AIT and its designated representative NOAA , in association with this .Implementing Arrangement, including applicable DOC/NOAA/NWS overhead costs and all taxes levied on WSR-88D equipment, parts, and consumables shipped to or from Taiwan.

The total costs for activities described in this Implementing Arrangement are dependent on variables such as frequency and extent of documentation updates; frequency and cost of hardware and software enhancements/replacements; and system failure rates. As such, it is impossible to project in advance the actual charges for the services provided. NOAA/NWS estimates that the average reconditioning costs for a WSR-88D are \$80,300 per year and that the average annual cost per system for consumables is \$15,000

The average cost for operations and applications software loads is estimated at \$7,400 per site; the average cost for a diagnostic software load is estimated at \$2,100 per site. Assuming the following map overlay requirements: country boundaries, rivers, highways, cities, and airports there would be a per site cost of \$2,000 for the data license and \$9,500 for the initial map overlay development. Assuming no requirement for custom hybrid scan and occultation data files, the default files would cost \$200. Should additional specific map overlay requirements be established, an additional cost for data would be incurred plus \$8,500 per month of labor effort. The estimated cost of updates to technical documentation, including operations manuals, is \$6,000. The cost of hardware updates required to maintain a standard configuration varies from upgrade to upgrade as does their frequency; therefore no average cost can be estimated. The costs of providing hardware and software enhancements must be paid prior to shipment, due to the variability in the expense and frequency of this support. AIT agrees to give TECRO at least a 90-day notification of upcoming hardware and software enhancements/replacements. All costs are estimated in U.S. dollars. Costs for all other operations support will be billed on a quarterly basis.

Any and all obligations of NOAA under this Implementing Arrangement are subject to the availability of appropriated funds. Nothing in this agreement will be construed by the parties to require the obligation, appropriation, or expenditure of any Federal funds. Before the beginning of every second fiscal year after this Implementing Arrangement is signed, AIT shall notify TECRO in writing whether sufficient appropriated funds are available to cover the estimated costs to NOAA of providing the stated goods and services hereunder for the next 2 fiscal years (excluding the cost of hardware and software enhancements). If NOAA's notification states that insufficient funds are available, NOAA shall be under no obligation to provide goods or services hereunder until sufficient appropriated funds are made available. Under no circ-

umstances shall NOAA be liable to AIT or any other entity for any failure to provide goods or services under this Implementing Arrangement owing to the unavailability of appropriated funds.

ARTICLE V-EFFECTIVE DATE, AMENDMENT, AND TERMINATION

This Implementing Arrangement is effective on the date of the last signature hereafter. This Implementing Arrangement may be amended and/or terminated by either party in accordance with the terms of the Agreement. Because the support called for in this agreement is ongoing, no completion date can be estimated at this time.

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

[Signed]

Peter P.C. Cheng

Date: May 12, 1998

FOR THE AMERICAM INSTITUTE  
IN TAIWAN

[Signed]

Barbara J. Schrage

Date: May 5, 1998