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ACTION MEMORANDUM FOR THE MISSION DIRECTOR

December 2, 1987

THRU: DD, Mr. Lee Twentyman  
FROM: O/PDS, Willy Baum *WDB*  
SUBJECT: ARRSTC Completion Report

Background:

The Asian Regional Remote Sensing Training Center project (AID Project No. 498-0253) was completed on July 31, 1987. A.I.D. Handbook 3, requires the preparation of a "Project Assistance Completion Report" within six months of the expiration of the PACD.

Discussion:

The attached Project Assistance Completion Report follows the guidance for preparing such reports as contained in Appendix 14-A of Handbook 3. It includes among other things, a brief review of project accomplishments, a summary of donor contributions, a definition of post-project monitoring responsibilities, and a summary of lessons learned.

Recommendation:

You signify your acceptance of this completion report by signing below.

Accepted *John R. Erickson*  
Rejected \_\_\_\_\_  
Date December 12, 1987

Clearance: O/PRO:EPloch *EP* date 12/3/87  
O/FIN:TFallon *df* date 12/6

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PROJECT ASSISTANCE COMPLETION REPORT  
ASIAN REGIONAL REMOTE SENSING TRAINING CENTER  
A.I.D. PROJECT NO. 498-0253

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The Asian Regional Remote Sensing Training Center (ARRSTC) project was completed on July 31, 1987. By that date all equipment had been procured and installed, all technical assistance had been delivered, and all training courses had been completed. The purpose of the project, to establish an internationally recognized regional remote sensing training center at the Asian Institute of Technology (AIT), fully utilized by the region's countries, providing training and other services to user agencies, had been achieved. Major outputs of the project, including the training of 300 officials from regional countries, had been accomplished.

As of that date, regional funds from the Asia Bureau totalling approximately \$4.96 million of the planned \$5.06 million had been delivered. During the life of the project, AIT contributed \$1.14 million to the project in cash and kind. Major support included the provision of office and classroom space, faculty and staff salaries, electricity and other utilities, and administrative support services. Other major donors included the Carl Duisberg Foundation of the Federal Republic of Germany and the Republic of France. Total contributions from these sources totalled \$297,000 and \$125,000 respectively. Various other donors have contributed another \$124,000 to the project.

Major accomplishments of the project include the establishment of both digital and analog systems for analyzing remotely sensed data. Mainstays of the digital system include a mainframe-based DIMAPS system, a superminicomputer-based ATLAS system, and microcomputer-based ERDAS and Pericolor systems. The supermini system is also capable of processing data from the new French SPOT satellites. A main feature of the analog system is a photographic laboratory which has sophisticated processing equipment and also has the capability of converting analog data to digital and visa versa. These systems provided the hardware base for the training of about 300 participants from 18 regional countries. Some of these participants also received advanced training in geographic information systems (GIS), made possible in part by the Map Analysis Package System (MAPS) software acquired under the project. Initial efforts were also made under the project to establish a data bank of regional remotely sensed data. While this data bank is currently of limited size, it has the potential to become a major resource in future remote sensing research programs. Thus it can be concluded that the purpose of the project has been achieved, and that accomplishment of project outputs either equaled or exceeded original plans.

The one area in which the ARRSTC falls short of original expectations is in the area of financial support from regional countries. When the project was designed, it was expected that the center would be the only remote sensing training facility in the region, and that regional governments would also be willing to contract with ARRSTC to carry out research projects needed for them to undertake their development programs. Project designers, however, did not foresee the nationalistic attitude that many regional governments would take concerning remotely sensed data; a nationalistic attitude that has resulted in many of the regional governments establishing their own remote sensing programs and training centers. Thus, while ARRSTC is clearly recognized as the premier training center in the region, and by far the best equipped research facility, regional governments have nevertheless not utilized ARRSTC programs to the extent envisioned by project designers. This has resulted in ARRSTC not being as financially strong and independent as had been planned. In a "Sixth Year Evaluation Report and Recommendations" authored by Charles E. Poulton, dated 24 September 1986, this weakness was highlighted. Poulton further indicated that there is a changed perception of the usefulness of remote sensing among researchers worldwide, who now see it as a valuable tool in geographic information systems and inventorying of natural resources (i.e., as a critical part of an analysis system) rather than an end in itself. Accordingly Poulton recommended that AIT maintain their remote sensing capability by incorporating ARRSTC into a new program focusing on the development and management of natural resources. The recommendation was accepted by AIT, and the ARRSTC is now the Remote Sensing Laboratory for the Interdisciplinary Natural Resources Development and Management (INRDM) Program.

The establishment of the new INRDM program and its incorporation of the ARRSTC does not essentially alter the success of the ARRSTC project, nor does it entail any new responsibility on the part of USAID/Bangkok to monitor the new INRDM program. The ARRSTC project has been successfully completed, as affirmed in this Report. Since an interdisciplinary program in natural resources is of programmatic interest to this Mission, we will undoubtedly monitor its progress over time. Such monitoring should not, however, be construed as a need for residual monitoring of the ARRSTC project. That project is completed, and no residual monitoring requirement has been identified for it.

There is perhaps a lesson to be learned from the ARRSTC project, however. The inputs to that project were essentially equipment and technical assistance. The outputs were the analytical systems and training programs that resulted. The ARRSTC was established, and it provided training and was otherwise utilized, and therefore the project purpose was achieved. But project planners probably paid insufficient attention to the long term viability of the project. During project implementation, it became evident to decision makers within the Mission and at AIT that the survival of ARRSTC depended on its total integration into AIT operations. The management of AIT understood the need, responded to it, and continues to do what it can to assure the long term survival of the remote sensing capability established

under the project. In the process of integrating ARRSTC into the INRDM program, they requested an additional \$350,000 from AID for the INRDM program -- which the Asia Bureau was apparently unable to provide. While clearly AID cannot accept the need for a continuous outlay of funds to assure project survival, nevertheless we know that our projects are not implemented in a vacuum and we should always reserve the capability to respond when long term project viability is in question. While it appears that AIT will be able to carry the ball this time, AID's apparent inability to respond to this modest financial request might have doomed this successful project to an early grave. That, in turn, would seem to be unacceptable. Therefore, it seems evident that AID should be prepared to be flexible and even responsive when it comes to questions of project long-term sustainability.

The following is a financial summary of the project:

	<u>\$,000</u>
USAID .....	4,960
AIT .....	1,139*
FRG/CDG Foundation .....	297
France .....	125**
Others .....	<u>124***</u>
<u>Total:</u> .....	<u>\$6,645</u> =====

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\* The AIT contribution does include the substantial cost of time on the IBM 3083 mainframe computer, which was an essential part of all training programs.

\*\* The French contribution does not include the substantial cost of long-term experts seconded to AIT/ARRSTC during the life of the project.

\*\*\* The Other Donor contribution does not include substantial amounts from support grants which were used for remote sensing scholarships and related costs but which cannot be identified in the AIT financial system.