# **Terminal Evaluation**

# Asia

1. Outline of the	Project	
Country:		Project title:
Republic of Philippines		The Project for Upgrading Human Resource Development for Air Navigation Systems Specialist at the Civil Aviation Training Center Manila
Issue/Sector:		Cooperation scheme:
Airlines/Airports		Project-type Technical Cooperation
Division in charge:		Total cost:
First Development Study Division, Social Development Study Department		520 million Yen
Period of Cooperation	1 October 1997 - 30 September 2002	<b>Partner Country's Implementing Organization:</b> Air Transport Office (ATO), Department of Transportation and Communication, The Civil Aviation Training Center (CATC)
		Supporting Organization in Japan: Ministry of Land, Infrastructure and Transport

#### **Related Cooperation:**

Grant Aid: "Improvement of Equipment for the Civil Aviation Training Center" Yen Loans: First period (1978 - 1984), Second period (1987 - 1995), Third period (1996 -) Dispatch of Experts; "Air Traffic Engineering", "Administrative Policy of Air Transportation" Development Study; "Detailed Design Study of the New Communications, Navigation, Surveillance and Air Traffic Management (CNS/ATM) Development Project"

#### 1-1 Background of the Project

In the Philippines, which consist of many islands, air transportation plays an important role. The demand for air transport of passengers and cargo is also increasing along with the country's rapid economic growth. In the medium-term plan for the country (1993 - 1998), to secure the safety of air transportation was an urgent political issue. It was especially important to improve the skills of the Air Navigation Systems Specialists (ANSSs) at the airports throughout the country. In order to realize this, Civil Aviation Training Center (CATC) needed to be enhanced.

The CATC was established as an institution for aeronautical education in 1978. However, currently, all the educational and training equipment is outdated and not in good working condition. Therefore, it required cooperation both in the improvement of its equipment and on technical transfer.

Under these circumstances, the Philippine government requested Japan to provide technical cooperation, which involves the improvement of the equipment by means of grant aid and upgrading of the skills of the ANSSs.

#### **1-2 Project Overview**

In order to foster air traffic controllers, the project developed a curriculum and textbooks for training, and trained instructors.

(1) Overall Goal

In the Philippines, the facilities for air navigation service are properly operated, maintained and managed.

(2) Project Purpose

Sufficient number of highly qualified ANSSs is produced.

#### (3) Outputs

1) An appropriate curriculum and training materials for the specialization courses are developed and revised as necessary.

2) Highly qualified instructors are prepared for the specialization courses for ANSSs.

3) The specialization courses and OJT for ANSSs are properly conducted.

4) Appropriate maintenance system for training equipment and related facilities are established.

(4) Inputs

Japanese side:

Long-term Experts	8	Short-Term Experts	26
Trainees received	20	Equipment	120 million yen
Local Cost	10 millio	on Philippine peso (approx. 20 million yen)	
Philippines' Side:			
Counterparts	18		
Local Cost	27 millio	on Philippine peso (approx. 56 million yen)	

Facilities

#### 2. Evaluation Team

Members of Evaluation Team	<ul> <li>Team Leader: Eiji INUI, Director, First Development Study Division, Social Development Study</li> <li>Department, JICA</li> <li>Radio Engineering: Shuji TAKAHASHI, ATSEP Training Section Professional Official, Tokyo Regional</li> <li>Civil Aviation Bureau, Ministry of Land, Infrastructure and Transport</li> <li>Air Traffic Power Facilities Engineering: Toru SUZUKI, Chief of Aeronautical Radio Facilities,</li> <li>Construction Division, Aerodrome Department, Civil Aviation Bureau, Ministry of Land, Infrastructure and Transport</li> <li>Air Traffic Engineering: Masahiko SAKANOUE, Radio Engineering Division, Air Traffic Services</li> </ul>								
					Department, Civil Aviation Bureau, Ministry of Land, Infrastructure and Transport				
					Cooperation Planning: Kumiko KASAHARA, Staff, First Planning Division, Social Development Cooperation Department, JICA				
									Evaluation analysis: Yuji AOKI, Deloitte Touche Tohmatsu
					Period of Evaluation	17 June 2002 - 25 June	Type of Evaluation:		
	2002	Terminal Evaluation							

### 3. Results of Evaluation

#### 3-1 Summary of Evaluation Results

(1) Relevance

"To secure the safety of air transportation" is stated as the priority subject in the draft of medium-term plan of the Philippine government (2002 - 2006) and in the annual plan of the Department of Transport and Communications (DOTC). It is thoroughly consistent with the organizational needs of ATO, to foster ANNSs with deep knowledge and skills, and instructors with specialized knowledge, and to review the educational system. Judging from these facts, the project purpose is relevant enough at the time of the terminal evaluation.

#### (2) Effectiveness

The comprehensive curriculum and textbooks for each of the four specialization courses (instrument landing system (ILS), VHF omnidirectional radio range (VOR), distance measuring equipment (DME) and radio detection and ranging (RADAR)) were

revised properly. Improper expressions which were pointed out at the mid-term evaluation were corrected; the curriculum and the textbook were revised according to the progress of the course; and supplemental textbooks were added. The quality of instructors was also improved as it was shown in the decrease of frequency of support provided by the experts to the instructors. A total of 325 ANNSs from the four courses had joined the project by the time of the terminal evaluation, and there are good prospects that the target of 370 participants will be reached by the completion of the project.

#### (3) Efficiency

There was a problem in the first half of the project, in which the experts team and the counterparts could not communicate sufficiently. However, this problem was resolved by holding periodical meetings. Inputs from both sides at the latter stage of the project indicated that both are reaching a level of satisfaction, which helped to heighten the effects of the project. Although the project purpose was accomplished, because the management of the project was weak, the direction of the project became obscure, resulting in lowering the motivation of related personnel.

#### (4) Impact

According to the interview survey to the participants, it was indicated that they fully utilized the acquired knowledge at their actual work places to cope with problems. For example, time spent on trouble-shooting was greatly reduced at the Kalibo Airport. Therefore, the project is contributing to the accomplishment of the overall goal of "in the Philippines, the facilities for air navigation service are properly operated, maintained and managed."

#### (5) Sustainability

The ex-participants utilized the knowledge acquired through the project at their working places. The knowledge and skills are expected to be utilized in a practical and sustainable manner if the planned OJT program is implemented in the future. However, budget for the operation and management of training after the termination of the project is not yet secured. Therefore, it is necessary to develop a concrete plan and an organizational framework after the termination of the project to continue training in the above four specialized courses.

### 3-2 Factors that Promoted the Realization of Effects

#### (1) Factors Concerning the Planning

The increasing need to secure the safety in air transportation sector was consistent with the priority subject of the national development policy in the Philippines. Therefore, there was a strong support to assure the budget and necessary personnel on the Philippines side.

#### (2) Factors concerning the Implementation Process

1) Japanese cooperation to the Philippines in the aviation sector varies, including yen loans, development studies, project-type technical cooperation, and the dispatch of individual experts, and these are linked effectively. In this project, the equipment for training procured through grant aid was reasonably and effectively utilized; the project was able to implement training; and the participants obtained the necessary knowledge and skills to cope with actual problems that occurred in the aeronautical safety facilities.

2) As the counterparts on the Philippines had high capabilities, the project could not only transfer knowledge from Japan, but also develope a training curriculum based on the global level knowledge and standards.

### 3-3 Factors that Impeded the Realization of Effects

(1) Factors Concerning the Planning

N/A.

(2) Factors concerning the Implementation Process

As the installation of training equipment was delayed, the commencement of the actual training was somewhat delayed.
 While ANS/ATO was responsible for the ANNSs (the direct beneficiaries), the responsible implementing body of the project was CATC, which made the management and operation system of the project weak. As a result, the problems that the Japanese side pointed out at the commencement of the project such as the payment for and treatment of instructors and staff were not solved before the implementation of the project. It was also observed that responses to problems that occurred during the project period tended to be slow.

## **3-4 Conclusion**

The project effectively and efficiently contributed to the fostering of ANSSs, which was necessary for both the Philippine government and the aeronautical safety sector in the Philippines. The project was able to accomplish all the objectives by the completion of the project.

### 3-5 Recommendations

(1) CATC should revise the draft of "training regulations" including the curriculum and training materials to meet the regulations and environment of the Philippines, and should organizationally approve the draft.

(2) CATC should implement OJT as planned.

(3) ANS should complete the guidelines for maintenance of the equipment and facilities. Utilizing the guidelines, ANS should establish the system of maintenance of the equipment provided by Japan's grant aid and technical support, and assure the budget and personnel for the project.

(4) CATC, in coordination with ANS, should draw up training plans for the four specialization courses and OJT, including the allocation of budget and assignment of training instructors after the project. Based on the drawn up training plans, CATC should continuously implement the training.

(5) In order to implement training in the four specialized courses and OJT plans securely, CATC should establish the system to secure financial incentives for instructors and pay attention to the proper personnel management in the work site and the training center.

#### 3-6 Lessons Learned

In this project, the organizations that had the supervisory responsibilities differed from the organization with implementing responsibilities. This resulted in various problems such as having a weak management system. In implementing another project related to this project in the future, or considering the fostering of personnel in other sectors, it is necessary to thoroughly study the organizational structure of the target organization and to clarify the demarcation between supervisory organization and the implementing organization.

### 3-7 Follow-up Situation

N/A.