

Nationwide Air Navigation Facilities Modernization Project (II)

Report Date: March 2000
Field Survey: November 1998

1 Project Summary and Japan's ODA Loan

(1) Background

The Philippines is one of the world's foremost island nations, with approximately 70 million citizens living on more than 7,000 islands. Thus, as economy grows and incomes rise, development of the transportation sector has always been given a high priority among national development plans. Within the sector, the aviation sector is recognized as one of requirements for economic development for its speed, regularity and amenity. It is expected to play an increasingly important role for passenger and cargo transport, thus rapid enhancement of this sector was in need.

This project was designed to newly provide or renovate the air navigation equipment at airports and air navigation facilities that were not covered by the Phase 1 project. It had an extremely high urgency for the Philippines, which still has a low coverage for air navigation facilities.

(2) Objectives

This project aims to assure safe and smooth navigation of airplanes in the Philippines by newly providing or renovating air navigation equipment.

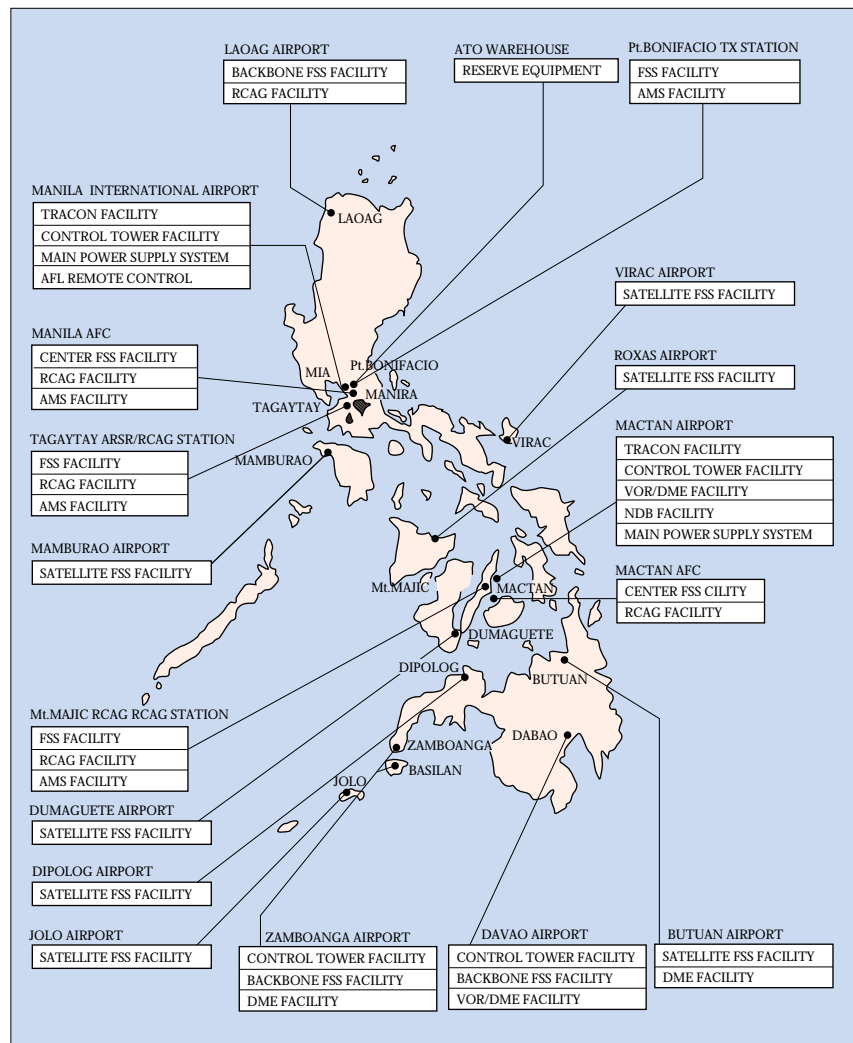
(3) Project Scope

Scope of this project is to newly provide or renovate air navigation equipment, mainly at the 13 airports (Manila International Airport, Mactan (Cebu) International Airport, for example) and air navigation facilities within the Manila flight information region. The ODA loan covered the entire foreign currency cost of this project.

(4) Borrower/Executing Agency

Republic of the Philippines/Department of Transportation and Communications

(5) Outline of Loan Agreement



Loan Amount	¥7,595 million
Loan Disbursed Amount	¥7,297 million

Date of Exchange of Notes	December 1985
Date of Loan Agreement	May 1986
Loan Conditions	
Interest Rate	3.5%
Repayment period (Grace Period)	30 years (10 years)
Procurement	General Untied
Final Disbursement Date	December 1995

2 Analysis and Evaluation

(1) Project Scope

The list of equipment covered by this ODA loan was revised in part compared to the plan at the appraisal stage. First, the most urgent tasks in particular were removed from the scope and covered by other funds when delays in bidding and other procedures occurred due to lawsuits from disqualified contractor. Moreover, due to changes in the project locations, coverage of existing equipment, and changes of environment at project locations, Air Transportation Office (ATO) requested and implemented their changes accordingly. These changes were done in response to changes in circumstances, they were seen appropriate in order to achieve the aims of the project.

(2) Implementation Schedule

The implementation schedule ran 5 additional years, compared to the initial plan. The reasons for this extension were that the selection of consultants was delayed due to a change in administration that brought with it political and administrative confusion, interruptions caused by lawsuits filed by a disqualified bidder, and the extension of construction due to site changes.

(3) Project Cost

While the foreign currency portion was almost the same with the planned amount, the local currency portion increased by 300% due to inflation during the extended implementation schedule and increases in consulting service costs (on a yen-denominated basis, this was a slight decrease). The increase portion was provided by the executing agency in a timely manner, thus no problems in particular occurred.

Comparison of Original Plan and Actual

Item	Plan	Actual	Difference
1. Project Scope			
Equipment	DME : 2 airports 2 sets	Same as left	-
	TRACON : 3 airports 3 sets	2 airports 2 sets	1 airport 1 set
	Control Tower : 4 airports 4 sets	Same as left	-
	FSS : 7 airports 7 sets	12 airports 12 sets	5 airports 5 sets
	VOR/DME : 2 airports 2 sets	Same as left	-
	RCAG : 5 airports 5 sets	6 airports 6 sets	1 airport 1 set
	ILS : 1 airport 1 set	Same as left	-
	ALF : 2 airports 2 sets	Cancelled	2 airports 2 sets
	AMS : 3 airports 3 sets	4 airports 4 sets	1 airport 1 set
	AFTN : 1 airport 1 set	Cancelled	1 airport 1 set
	ATMS : None	1 airport 1 set (addition)	1 airport 1 set
	FDPS : 1 airport 1 set	Cancelled	1 airport 1 set
	NDB : None	2 airports 2 sets (addition)	2 airports 2 sets
Consulting Services	Detailed design, bidding assistance, construction supervision, special study	Same as left	-
2. Implementation Schedule			
Start of construction	April 1986	March 1987	11 months delay
Completion of construction	September 1989	September 1994	60 months delay
3. Project Cost			
Foreign currency	¥7,595 million	¥7,297 million	¥298 million
(ODA loan portion)	(¥7,595 million)	(¥7,297 million)	¥298 million
Local currency	37.903 million pesos	128.458 million pesos	90.555 million pesos
(ODA loan portion)	(¥530 million)	(¥501 million)	(¥29 million)
Total	¥8,125 million	¥7,798 million	¥327 million

(4) Project Implementation Scheme

The executing agency for this project was Air Transportation Office (ATO) within Department of Transport and Communications (DOTC). For the implementation of this project, Project Management Office (PMO) was established within ATO, and PMO performed procurement and implementation management duties. The manufacturing, shipping, and installation of equipment were implemented on a turnkey basis¹ by a private supplier following a detailed design by the consultant. PMO performed its evaluation, inspection, and supervisory functions with advice from the consultant at each implementation stage. The ATO engineers and local consultants formed technical working groups at each project site and performed project management under the supervision of PMO.

Although the project was delayed long at its implementation preparation stage, the reasons were mostly beyond ATO's control. ATO's performance can be said not to have been inferior to that of other organizations.

(5) Operations and Maintenance

The equipment and facilities introduced through this project were installed at major airports throughout the Philippines as well as air route monitoring radar and communications stations. They are all operating satisfactorily in general, being used on a daily basis for air navigation safety operations. In particular, all the major equipment installed at the Manila International Airport and the Mactan International Airport, which were visited on this ex-post evaluation site survey, were operating satisfactorily. According to ATO, the equipment introduced are being suitably operated and maintained based on the manufacturer's manual and ICAO standard. The efforts are being made to ensure a satisfactory operating state at all times.

However, difficulties regarding the procurement of spare parts for maintenance were observed. Although the procurement of parts is highly needed, procurement is being performed on an extremely limited scale. The reasons for this is that air navigation related equipment is fabricated after it is ordered, therefore many manufacturers do not keep parts in stock, and that parts must be procured through bidding per Philippine government rules, which results in complicated procedures. As a countermeasure, the establishment of a maintenance center was included in the scope of the following Phase 3 project.

(6) Project Effects and Impacts

All the air navigation facilities provided through this project are designed to improve air navigation safety and enable an increase in air navigation traffic by assuring safety.

Particularly in the Philippines, where typhoons frequently occur, flights by pilots' vision are considerably restricted, and thus the role played by these facilities is extremely important. The facilities provided through this project contribute to raising the overall level of air navigation systems throughout the Philippines. Additional effects of this project were improved service for passengers, increased revenue from the usage of air navigation facilities (foreign currency acquisition), higher profitability of airlines, and transfer of technology to the ATO staff.

¹ The contractor was responsible for all the work, from the fabrication, shipping of equipment and the construction of the buildings housing it to the equipment's installation.



Control Tower : The Console in Sub-ACC



Control Tower at Mactan Airport



Radar Building (ARSRISSR)