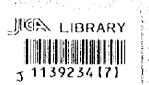
JAPAN INTERNATIONAL COOPERATION AGENCY(JICA)

DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS REPUBLIC OF THE PHILIPPINES

THE STUDY ON SELECTED AIRPORTS MASTER PLANNING PROJECT IN THE REPUBLIC OF THE PHILIPPINES

> FINAL REPORT Volume 3 : APPENDIX



March 1997

PACIFIC CONSULTANTS INTERNATIONAL AERO ASAHI CORPORATION JOINT VENTURE-TOKYO, JAPAN



JAPAN INTERNATIONAL COOPERATION AGENCY(JICA)

DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS REPUBLIC OF THE PHILIPPINES

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PACIFIC CONSULTANTS INTERNATIONAL AERO ASAHI CORPORATION JOINT VENTURE-TOKYO, JAPAN

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Minutes of Meeting

the Inception Report

of

the Study on Selected Airports Master Planning Project

in-

the Republic of the Philippines

A team organized by Japan International Cooperation Agency (hereinafter referred to as the JICA) arrived in Manila on April 9, 1996 for the Study on Selected Airports Master Planning Project (hereinafter referred to as the Study). The JICA team consisted of the Study Team, headed by Mr. Hideki Murata, two members of the Advisory Committee, headed by Mr. Kazuhito Atao and a Coordinator.

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The JICA team submitted twenty (20) copies of the Inception Report to the Department of Transportation and Communications (hereinafter referred to as the DOTC) on April 10, 1996.

Meetings were held on April 19 and 22, 1996 between the JICA team and DOTC counterparts for the presentation and discussion of the Inception Report. DOTC counterparts consisted of the nuembers of the Technical Working Committee and Steering Committee, headed by Dr. Primitivo C. Cal, Undersecretary of DOTC. A list of participants is shown in Appendix-A.

After the presentation and discussions, DOTC accepted, in principle, the Inception Report, and promised full cooperation for the Study. Some additional comments noted by both sides are as follows:

- 1) With regard to the study organization, the chart shown in page 4-1 of the Inception Report will be revised to reflect that the Steering Committee reports to DOTC.
- 2) DOTC requested the JICA to include site selection studies for Iloilo, Tacloban and Legaspi Airports if ultimate development of the existing airports could not accommodate anticipated demand. However, it was agreed between DOTC and JICA that the site selection for a new airport would be conducted only for Bacolod due to the limited time and budget for the Study.

- 3) The site selection study for the new Bacold Airport will be conducted for the four sites identified by the province. However, other potential sites may be added, if there are any other appropriate sites within 20 km from Bacolod City.
- 4) DOTC promised the Study Team to provide with the three rooms at Manila Luxury Condominium, Pasig City as the office space. A telephone (direct line) and 12 desks with chairs will be provided in the Study Team office.
- 5) JICA informed DOTC that the request for equipment was not approved. The DOTC promised to provide the required computer and copy machine for the Study.

April 22, 1996

For the DOTC

For the JICA

冒険し渡し -Cesar T. VALBUENA

Project Director Technical Working Committee

Witnessed by

Primitivo C. CAL Chairman Steering Committee

Hideki MURATA

Team Leader Study Team

Witnessed by

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Kazuhito ARAO Chainman Advisory Committee

LIST OF PARTICIPANTS

L. ON APRIL 19, 1996

DOTC

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Technical Working Committee Chairman: George D. ESGUERRA, DOTC Co-Chaiman: Florante MAGDAMO, ATO Project Manager: Raphael S. LAVIDES, DOTC Asst. Project Manager: Reynaldo A. CACATIAN, ATO Manuel ESCOBAR, ATO Andrew B. BASALLOTE, ATO Ma. Filipinas CABANA, DOTC Felicisimo PANGILINAN Jr., DOTC Ligaya S. POSTRERO, ATO Rolando C. MENDOZA, Philippine Airlines Napoleon G. QUEZON, Philippine Airlines Neneng MABOOT, Air Philippines Tomas YANEZ, Aerolift Philippines

2) JICA

(1)

- <u>JICA Advisory Committee</u> Chairman: Kazuhito ARAO Shinichiro KOIKE
- (2) JICA Coordinator

Hiroyuki KANZAKI

(3) <u>JICA Study Team</u> Team Leader:

Hideki MURATA Toru SHIMADA Hiroyuki UEDA Masashi KABURAGI Tadamitsu 170 Motoyoshi YAMADA Masato DOMON Yutaka YAMASAKI Eiko MORI

(4) <u>Observer</u>

Yukihiko EJIRI, JICA Philippine Office Salima C. BAUTISTA, JICA Philippine Office Toshiji ABE, ATO/JICA

- 2. ON APRIL 22, 1996
- I) DOTC
- (1) <u>Steering Committee</u> Chairman:

Primitivo C. CAL, Undersecretary, DOTC George D. ESGUERRA, DOTC (Representing Asst. Sec. Cesar VALBUENA) Martin S. VALERA, Department of Tourism Victor DATO, National Economic and Development Authority

- (2) <u>Others</u> Raphael S. LAVIDES, Division Chief, DOTC Felicisimo C. PANGILINAN Jr., DOTC Ma. Filipinas Z. CABANA, DOTC Elmira M. DOMINGO, DOTC
- 2) JICA
- (1) <u>JICA Advisory Committee</u> Chairman: Kazuhito ARAO Shinichiro KOIKE
- (2) <u>IICA Coordinator</u> Hiroyuki KANZAKI

(3) <u>JICA Study Team</u> Team Leader: Hideki MURATA Toru SHIMADA

(4) <u>Observer</u>

Yukihiko EJIRI, JICA Philippine Office Salima C. BAUTISTA, JICA Philippine Office Toshiji ABE, ATO/JICA

Minutes of Meeting

on

the Progress Report

of

the Study on Selected Airports Master Planning Project

in

the Republic of the Philippines

From April 19, 1996, a study team organized by Japan International Cooperation Agency (hereinafter referred to as the JICA Study Team) has conducted the First Field Survey in the Philippines for the Study on Selected Airports Master Planning Project (hereinafter referred to as the Study).

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As a result of the First Field Survey, the JICA Study Team submitted twenty (20) copies of the Progress Report to the Department of Transportation and Communications (hereinafter referred to as DOTC) on May 30, 1996.

Meetings were held on June 3, 1996 between the JICA Study Team and the DOTC Technical Working Committee and Steering Committee. The list of participants is shown in Appendix-A.

As recommended by the Steering Committee, DOTC accepted, in principle, the Progress Report. Comments noted and decisions made are as follows:

- DOTC confirmed that most of the information and data in the Progress Report were accurate. Should there be any additional information/comments for the JICA Study Team, DOTC would inform the JICA Study Team before June 10, 1996 by facsimile.
- 2) DOTC selected Site 3 as an alternative site for Bacolod Airport, subject to further consultation with local government authorities within the next two (2) weeks. The comparative study between the existing airport development and new airport development at Site 3 would be conducted during the First Study Work in Japan, which would prepare an optimum development master plan for Bacolod Airport.

- 3) DOTC and the JICA Study Team agreed, in principle, that the optimum development plan of each airport shall consider the following factors:
 - a) Convenience of users including passenger, airline, airport authority, and others.
 - b) Operational conditions including aircraft operation and obstacles on air space.
 - c) Expandability of facilities and flexibility in phased implementation.
 - d) Environmental impact including those on natural environment, social environment and pollution.
 - e) Project cost and ease of implementation including effective use of existing facilities, ease of removal and/or relocation of existing facilities, ease of land acquisition, length of access road construction/improvement, ease of construction, preliminary project cost, economic net present value and financial internal rate of returns.
- 4) DOTC and the JICA Study Team agreed, in principle, that the major determining factors for selecting an airport for the Feasibility Study should be as follows:
 - a) Optimal economic internal rate of returns in the long term
 - b) Large number of beneficiaries (high traffic volume) in the long term
 - c) Least problems in project implementation in the medium term
 - d) Project cost estimates

Signed on 3rd of June 1996 in Pasig City, Metro Manila.

For the DOTC

Cesar T. VALBUEN& Project Director, Technical Working Committee

Noted by

Printitivo C. CAL Undersecretary and Chairman, Steering Committee

For the JICA

Hideki MÚŔATA Team Leader, Study Team

Masashi SHUKUNOBE Assistant Resident Representative JICA - Philippine Office

LIST OF PARTICIPANTS

1) DOTC

(1) <u>Steering Committee</u> Chairman:

Primitivo C. CAL, Undersecretary, DOTC Manuel GASPAY, Director, EMB William Russel SOBREPENA, Undersecretary DOT Victor DATO, National Economic and Development Authority Margaret DEFENSOR, President, FEDAVOR

- **Technical Working Committee** (2) George D. ESGUERRA, DOTC Chairman: Project Manager: Raphael S. LAVIDES, DOTC Asst. Project Manager: Reynaldo A. CACATIAN, ATO Ligaya S. POSTRERO, ATO **Ricardito EGUNA** Merle NEGRADAS Frisco Sto. DOMINGO Filipina L. LARRACAS, DOTC Ma. Filipinas CABANA, DOTC Andrew B. BASALLOTE, ATO Elmira M. DOMINGO, DOTC Roy GAMOSA, ATO Brendo ELEGIO, DOTC Felicisimo PANGILINAN Jr., DOTC Elsa PINEDA, DOTC Ruby MANZO, DOTC Napoleon G. QUEZON, Philippine Airlines
- (3) <u>Others</u>

Renato M. SANTOS, ATO Gilbert BASBAS, EMB Ember TAN, FEDAVOR

2) JICA

1

(1) <u>JICA Study Team</u> Team Leader:

Hideki MURATA Toru SHIMADA Motoyoshi YAMADA Masato DOMON Per TOON

(2) <u>Observer</u>

Masami SHUKUNOBE, JICA Philippine Office Toshiji ABE, ATO/JICA

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Minutes of Meeting on the Selection Report of the Study on Selected Airports Master Planning Project in

the Republic of the Philippines

The Study Team organized by Japan International Cooperation Agency (hereinafter referred to as the JICA Study Team) arrived in Manila on August 4, 1996 for the Study on Selected Airports. Master Planning Project (hereinafter referred to as the Study).

The JICA Study Team submitted twenty (20) copies of the Selection Report to the Department of Transportation and Communications (hereinafter referred to as the DOTC) on August 5, 1996.

Meetings were held on August 9, 1996 between the JICA Study Team and the DOTC Technical Working Committee and Steering Committee. A list of participants is shown in Appendix-A.

As recommended by the Steering Committee, DOTC accepted, in principle, the Selection Report. Comments noted and decisions made are as follows:

1) DOTC reconfirmed its selection of Site 3 (Silay) as the site for the proposed new Bacolod Airport after the discussion of its advantages over the alternative sites.

2) DOTC selected Bacolod Airport as the airport for the feasibility study, as recommended by the JICA Study Team, and confirmed that the JICA Study Team can proceed with the topographic survey, soil investigations and environmental survey at the new Bacolod Airport Site 3.

- 3) The JICA Study Team recommended studies on alternative sites of Iloilo and Legaspi Airports, and DOTC fully endorsed this recommendation for immediate action.
- 4) DOTC requested the JICA Study Team to provide an estimate of man-months required for the said site selection study, and the JICA Study Team noted the request. DOTC decided to

formally request JICA to consider these additional site selection studies for funding under the Study.

Signed on 9th of August 1996 in Pasig City, Metro Manila.

For the DOTC

For the JICA

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Cesar T. VALBUENA Project Director, ATechnical Working Committee

unal Hideki MURATA

Hideki MURA Team Leader, Study Team

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Noted by

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Whole

Primilivo C. CAL Undersecretary and Chairman, Steering Committee

Hisakatsu OKUDA Assistant Resident Representative JICA Philippine Office

Appendix-A

LIST OF PARTICIPANTS

DOTC 1)

(1)	<u>Steering Committee</u> Chairman: Vise-Chairman: Project Director:	Primitivo C. CAL, Undersecretary, DOTC Carlos F. TANEGA, Assistant Secretary, ATO Cesar T. VALBUENA, Assistant Secretary, DOTC Francisco A. ARELLANO, Representative, EMB William Russel SOBREPENA, Undersecretary DOT Victor DATO, National Economic and Development Authority Arturo VALDES, Office of the Secretary, DOTC
(2)	Technical Working Con	nimittee
.,	Project Director:	Cesar T. VALBUENA, Assistant Secretary, DOTC
	Project Manager:	Raphael S. LAVIDES, DOTC
		Reynaldo A. CACATIAN, ATO
	Chairman:	George D. ESGUERRA, DOTC
		Ricardito EGUNA, ATO
		Merle NEGRADAS, ATO
		Edmundo GEROCHI, ATO
		Frisco Sto. DOMINGO, ATO
		Adelaida OLBOC, DOTC
	•	Ma. Filipinas CABANA, DOTC
		Elmira M. DOMINGO, DOTC
		Brendo ELEGIO, DOTC
		Felicisimo PANGILINAN Jr., DOTC
÷ :	ann an Airtean Airtean Airtean Air	Elsa PINEDA, DOTC

JICA 2) JICA Study Team Team Leader: (1)

Hideki MURATA Toru SHIMADA Motoyoshi YAMADA Tadamitsu ITO

(2) Observer

Hisakatsu OKUDA, JICA Philippine Office Grace M. CIEGO, JICA Philippine Office

Minutes of Meeting

on

the Interim Report

of

the Study on Selected Airports Master Planning Project

in

the Republic of the Philippines

A team organized by Japan International Cooperation Agency (hereinafter referred to as the JICA) arrived in Manila on September 15, 1996 for the Study on Selected Airports Master Planning Project (hereinafter referred to as the Study). The JICA mission consisted of the Study Team, two members of the Advisory Committee and a Coordinator.

The JICA mission submitted twenty (20) copies of the Interim Report to the Department of Transportation and Communications (hereinafter referred to as the DOTC) on September 16, 1996.

The JICA mission held three meetings with DOTC on September 18, 20 and 23, 1996 for the presentation and discussion of the Interim Report. A list of participants is shown in Appendix-A.

After the presentation and discussions, DOTC accepted, in principle, the Interim Report. DOTC also agreed to the following measures to ensure the smooth implementation of the Study:

- i) The preliminary design and feasibility study of the new Bacolod Airport should be based on the air traffic demand forecast and facility requirements presented in the Interim Report.
- ii) The master plan of the new Bacolod Airport should be developed further in the Second Study Work in Japan. In determining the area of the land acquisition for the new Bacolod Airport, due consideration should be given to the future airport developments even beyond the year 2015, especially on the developments as follows:

provision of complete parallel taxiway



- expansion of terminal area
- introduction of B747 class aircraft (ICAO code letter E)
- runway extension up to 3,200m
- iii) The JICA Study Team will try to provide DOTC with the project information required for realization of the project under the 22nd Yen Credit Package of the OECF, Japan even before the submission of the Draft Final Report. DOTC should, in advance, inform the Study Team of the types of information required for the NEDA ICC approval.

Signed on 23rd of September 1996 in Pasig City, Metro Manila.

For DOTC

For JICA

M/Gen. CARLOS F. TANEGA Assistant/Secretary, Air Transportation Office

Noted by

PRIMITIVO C. CAL

Undersecretary and Chairman Steering Committee

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HIDEKI MÜRATA Team Leader, Study Team

HISAKATSU OKUDA Assistant Resident Representative JICA Philippine Office

Appendix-A

LIST OF PARTICIPANTS

September 18, 1996 I.

DOTC I)

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(1)**Technical Working Committee** Project Manager: Raphael S. LAVIDES, DOTC Asst. Project Manager: Reynaldo A. CACATIAN, ATO Ligaya POSTRERO, ATO Ricardito EGUNA, ATO Merla NEGRADAS, ATO Frisco STO. DOMINGO, ATO Ma. Filipinas CABANA, DOTC Andrew B. BASALLOTE, ATO Elmira M. DOMINGO, DOTC Felicisimo PANGILINAN Jr., DOTC Efren A CRUZ, Philippine Airlines Antonio S. SOLIS Jr., Air Philippines Jessie P. UY, Cebu Pacific Air Elsa P. ILAGAN, DOTC

(2)	Observer	Anacleto V. VENTURINA	AŤO
2)	JICA		. "··
(1)	JICA Advisory Con	miltee	
. :	Chairman:	Kazuhito ARAO Seinosuke IWATA	· · · · · · · · · · · · · · · · · · ·
(2)	JICA Coordinator	Tasturo MORIKATSU	
(3)	JICA Study Team Team Leader:	Hideki MURATA Toru SHIMADA	· · ·
(4)	Observer		

Observer

Toshiji ABE, ATO/JICA Emily B. OSORIO, ATO

II. September 20, 1996

- 1) DOTC
- Steering Committee
 Chairman:
 Project Director:
 Primitivo C. CAL, Undersecretary, DOTC
 Cesar T. VALBUENA, Assistant Secretary, DOTC
 William Russel SOBREPENA, Undersecretary DOT
 Francisco A, ARELLANO, Representative, EMB
 Victor DATO, National Economic and Development

Victor DATO, National Economic and Development Authority Margaret S. DEFENSOR, President, FEDAVOR

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(2) Technical Working Committee Chairman: George D. ESC Project Manager: Raphael S. LA Ligaya POSTE

George D. ESGUERRA, DOTC Raphael S. LAVIDES. DOTC Ligaya POSTRERO, ATO Merla NEGRADAS, ATO Ma. Filipinas CABANA, DOTC Andrew B BASALLOTE, ATO Elmira M. DOMINGO, DOTC Brendo ELEGIO, DOTC Felicisimo PANGILINAN Jr., DOTC Elsa P. ILAGAN, DOTC Ruby MANZO, DOTC

(3) Observer

Cristina T. SOLOMON, DOT

2) JICA

- (1) JICA Advisory Committee Chairman: Kazuhito ARAO Seinosuke IWATA
- (2) JICA Coordinator
 (3) JICA Study Team
 Team Leader: Hideki MURATA
 Toru SHIMADA
- (4) Observer Hisakatsu OKUDA, JICA Philippine Office Grace M. CIEGO, JICA Philippine Office Toshiji ABE, ATO/JICA

III. September 23, 1996

I) DOTC

Amado S. LAGDAMEO, Jr. Secretary, DOTC Primitivo C. CAL, Undersecretary, DOTC M/Gen.Carlos F. TANEGA (Ret.), Assistant Secretary, ATO

Arturo VALDEZ, DOTC Ma. Filipinas Z. CABANA, DOTC Felicisimo C. PANGILINAN, Jr., DOTC

2) JICA

0

Hideki MURATA, Team Leader, Study Team Toru SHIMADA, Member, Study Team

Hisakatsu OKUDA, JICA Philippine Office Grace M. CIEGO, JICA Philippine Office Toshiji ABE, ATO/JICA

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Minutes of Meeting on the Draft Final Report of the Study on Selected Airports Master Planning Project in

the Republic of the Philippines

A team organized by Japan International Cooperation Agency (hereinafter referred to as the JICA) arrived in Manila on January 19, 1997 for the Study on Selected Airports Master Planning Project (hereinafter referred to as the Study). The JICA mission consisted of the Study Team and two members of the Advisory Committee.

The JICA mission submitted twenty (20) copies of the Interim Report to the Department of Transportation and Communications/Air Transportation Office (hereinafter referred to as the DOTC/ATO) on January 20, 1997.

The JICA mission held two separate meetings with the DOTC/ATO Technical Working Committee and Steering Committee on January 21 and 22, 1997, respectively for the presentation and discussion of the Draft Final Report. A list of participants is shown in Appendix-A.

After the presentation and discussions, DOTC/ATO accepted, in principle, the Draft Final Report as recommended by the Steering Committee. Comments noted and decisions made were as follows:

1. DOTC/ATO promised to consolidate the Philippine Government's comments on the Draft Final Report and to send them to the JICA Manila Office by February 24, 1997.

2. Noting the possible inclusion of the project under the 22nd Yen Credit Package of the Overseas Economic Cooperation Fund of Japan, DOTC/ATO confirmed its intention to finalize the project proposal, which will consist of the engineering services for the four airports and the initial phase development of the new airport in Silay City, Negros Occidental for onward transmittal to NEDA.

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3. DOTC/ATO reiterated their sincere appreciation to JICA and the Study Team for the successful conduct of the Study.

Signed on 23rd of January 1997 in Pasay City, Metro Manila.

For DOTC/ATO

For JICA

GEORGE D. ESGUERI

Project Director, Technical Working Committee

Noted by

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M/Gen. CARLOS F. TANEGA Assistant Secretary and Chairman Steering Committee

urald

HIDEKI MURAT Team Leader Study Team

荒尾秋

KAZUHITO ARAO Chairman Advisory Committee

Appendix-A

LIST OF PARTICIPANTS

- I. January 21, 1996
- 1) DOTC/ATO
- (1) <u>Steering Committee</u> Chairman: Calros F. TANEGA, Assistant Secretary, ATO Margaret DEFENSOR, President, FEDAVOR
- (2) **Technical Working Committee** Project Director: George D, ESGUERRA, DOTC Reynaldo A. CACATIAN, ATO Brendo C. ELEGIO, ATO Andrew B. BASALLOTE, ATO Manuel E. ESCOBAR, ATO Ma. Filipinas Z. CABANA, DOTC/ATO Victor DATO, NEDA Rolando C. MENDOZA, Philippine Airlines Naporeon G. QUEZON, Philippine Airlines Felicisimo C. PANGILINAN Jr., DOTC **Ricardito EGUNA, ATO** Merla NEGRADAS, ATO Frisco STO. DOMINGO, ATO Alan A. JAVA, ATO Mario A. RADAZ, ATO Roy G. GAMOSA, ATO
- JICA
 <u>IICA Advisory Committee</u> Chairman: Kazuhito ARAO

Kazuhito ARAO Shinichiro KOIKE

(2) <u>JICA Study Team</u> Team Leader: Hideki MURATA Toru SHIMADA Motoyoshi YAMADA

(3) Observer

Hisakatsu OKUDA, JICA Philippine Office

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II. January 22, 1996

1) DOTC/ATO

- (1) <u>Steering Committee</u> Chairman: Carlos F. TANEGA, Assistant Secretary, ATO William Russel SOBREPENA, Undersecretary DOT Miguel O. CORDERO, Assistant Secretary, DOTC Ember D. TAN, Representative, FEDAVOR
- (2) <u>Technical Working Committee</u> Deputy Project Director: Zosimo S. PASCUA, Jr., DOTC Project Manager: Raphael S. LAVIDES, DOTC/ATO Reynaldo A. CACATIAN, ATO Ma. Filipinas Z. CABANA, DOTC/ATO Felicisimo C. PANGILINAN Jr., DOTC

2) JICA

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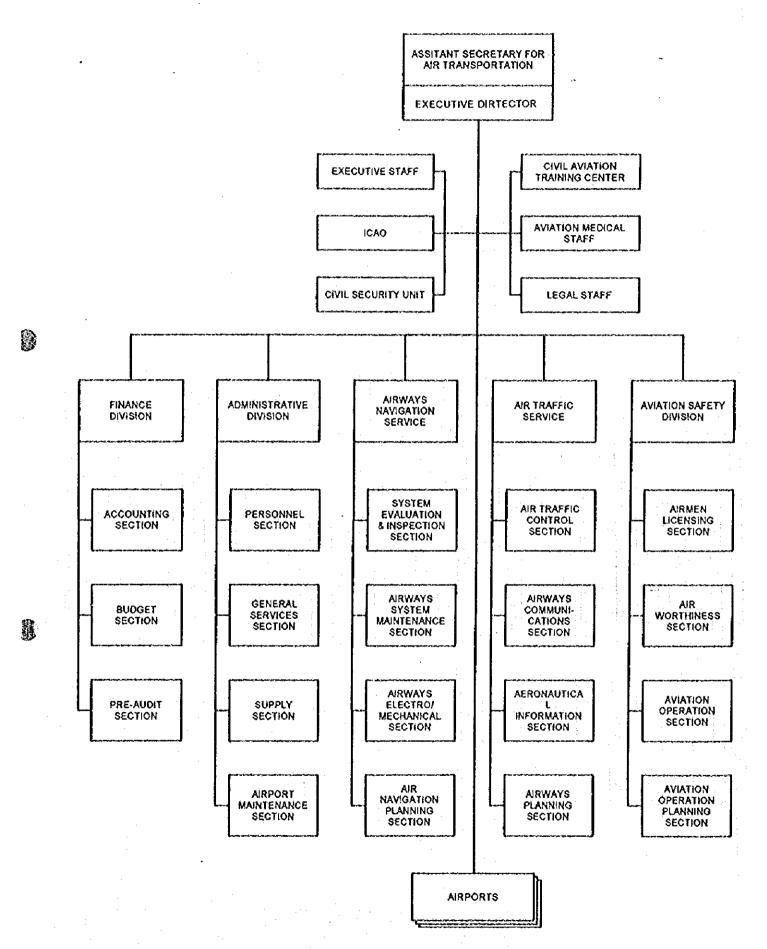
(l) ·	JICA Advisory C	ommittee
	Chairman:	Kazuhito ARAO
	· · ·	Shinichiro KOIKE

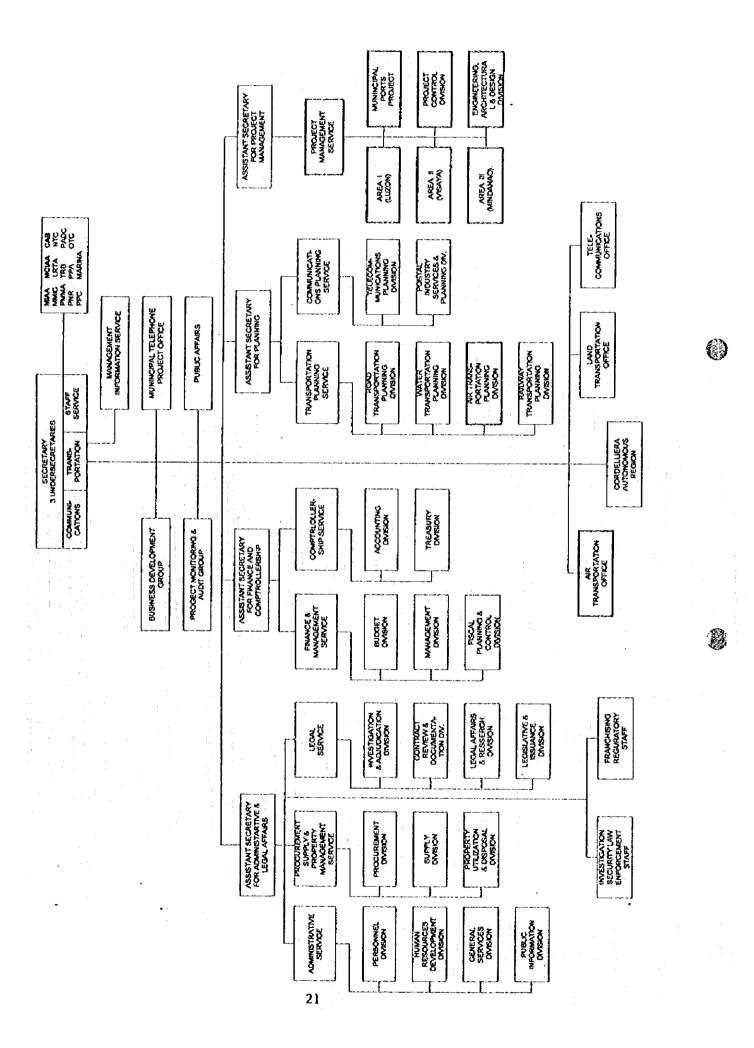
(2) <u>JICA Study Team</u> Team Leader:

Hideki MURATA Toru SHIMADA Motoyoshi YAMADA

(3) <u>Observer</u>

Toshiji ABE, ATO/JICA





Internatio	nal Airport
Clark	3,200 x 61
	3,200 x 46
Davao	2,500 x 45
Laoag	2,420 x 45
Mactan	2,591 x 45 ·
NAIA	3,345 x 60
	2,425 x 30
Subic	2,744 x 45
Zamboanga	2,610 x 45

Trunkline A	Airport
Bacolod	1,958 x 30
Baguio	1,680 x 30
Cagayan de Oro	2,380 x 36
Cotabato	2,000 x 36
Dumaguete	1,731 x 36
General Santos	1,700 x 30
lloilo	2,100 x 45
Legaspi	2,158 x 36
Puerto Princesa	2,600 x 45
Roxas	1,890 x 30
San Jose	1,836 x 30
Tacloban	2,140 x 45

Secondary	Airport	Feeder Ai	rport
Allah Valley	1,340 x 18	Alabat	670 × 49
Antique	975 x 30	Aparri	1,100 x 30
Bagabag	1,000 x 30	Baler	1,400 x 30
Basco	1,300 x 30	Barobo	800 x 20
Bislig	1,200 x 30	Biliran	1,000 x 30
Butuan	1,952 x 36	Borongan	800 x 30
Calapan	960 x 30	Bulan	890 x 30
Calbayog	1,475 x 30	Busuanga	1,200 x 30
Catarman	1,250 x 30	Cagayan de Sulu	1,300 x 30
Cauayan	1,740 x 36	Camiguin	1,200 x 30
Daet	1,150 x 30	Castillejos	1,020 x 30
Dipolog	1,870 x 30	Catbalogan	1,200 x 30
lligan	1,400 x 30	Caticlan	810 x 30
Jolo	1,350 x 30	Corregidor	1,200 x 20
Kalibo	1,830 x 30	Cuyo	800 x 30
Lahug	800 x 30	Dolores	1,000 x 36
Lubang	1,210 x 30	Guiuan	2,134 x 50
Malabang	1,257 x 30	Hilongos	1,000 x 30
Mamburao	1,300 x 30	lba	1,000 x 30
Marinduque	1,400 x 30	Ipil	750 x 30
Masbate	1,200 x 30	Itbayat	500 x 30
Mati	1,300 x 36	Jomalig	570 x 30
Naga	1,282 x 30	Liloy	500 x 30
Ormoc	1,100 x 30	Lingayen	800 x 30
Ozamis	1,200 x 30	Lucena	1,000 x 30
Pagadian	1,680 x 36	Maasin	1,000 x 30
Plaridel	900 x 30	Malaybalay	962 x 30
Rombion	1,204 x 30	Palanan	1,000 x 30
San Fernando	1,250 x 36	Rosales	800 x 30
Sanga-Sanga	1,448 x 36	Siargao	1,020 x 30
Sorsogon/Bacon	1,350 x 30	Siocon	500 x 30
Surigao	1,536 x 30	Siguijor	1,250 x 30
Tagabilaran	1,382 x 30	Ubay	1,475 x 30
Tandag	1,360 x 30	Wasig	1,000 x 30
Tuguegarao	1,771 x 36	• · · · ·	
Vigan	1,045 x 30		
Virac	1,560 x 30		

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Appendix 2.3.4

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DOME	STIC FLIG	INES, INC. HT SCHEDUL MARCH 1996	E (QFS01-96)	•
DIST	FROM	το	FLIGHT NUMBER	FREQ
BACOLO 120	DD (BCD)	Cehu	99171	

SECT		· · · · ·	FLIGHT						
DIST	FROM	οτ	NUMBER	FREQUENCY	LEAVE	ARRIVE	A/C	ONE-WAY	TERMINA
ACOLOD	BCOL				LLAVE	AKKIYE	TYPE	FARE(PHP)	FEE
120	TRAN	Себи	00314					an digan sa dinigi tanggi da tanggi sagi anggi	1.50
478	-1.	Maniła	PR371	DAILY	5:40 am	6:10 am	B737	752.00	•••••
478		Manila	PR132	DAILY	8:15 am	9.15 am	8737	1,535.00	
478		Manila	PR134	DAILY	1:30 pm	2:30 pm	8737	1,535.00	
478		Manila	PR136	DAILY	5:15 pm -	6:15 pm	6737	1,535.00	
478			PR138	DAILY	8:15 pm	9:15 pm	8737	1,535.00	
		Manila flight as need an	PR1380 (*)	DAJLY	9:20 pm	10:20 pm	8737	1,535.00	
AGUIO (B	A SECTOR	ingot as need an	ses.	*-·	,	•		1,000.00	
213	(AS)	Suspended effe	ective 15 April 1995	unul 07 August 1995 de	I WIP				
ASCO (BS		Manila	PR205	MONVE/FR/SU	10.00 am	10:35 am	B737	1,001.00	1.50
267	201							1,001.00	
672		Leoag	PR218	MONDAY	11:35 am	12:35 pm	F50	811.00	0.75
		Manila	PR223	MONVE	3.05 pm	5:05 pm	F50	811.00	•. *
672		Manila	PR227	ERIDAY	9:10 am	11:10 am	- F50	1,870,00	
317		Tuguegarao	PR224	WEDNESDAY	11:35 am	12:35 pm		1.870.00	
UTUANTE	IXU)					12.00 pm	F50	942.00	
224		Cebu	PR466	TU/TH/FR	10:15 am	11:05 am	500		1.50
224		Cebu	PR468	MO/SA	1:25 pm		F50	796.00	
787	· · · · · · · · ·	Manifa	PR478	MO/WE/FR/SU	2-66 Am	2:15pm	F50	796.00	۰.
AGAYAN	DE ORO (çöŋ			2:55 pm	4:15pm	B737	2,362.00	-
228		Cebu	PR176	MO/WE/SA	7.00				1.50
143		Colabato	PR498	TH/SU	7:20 am	7:55am	8737	1,041.00	
181		Davao	PR121		9:45 am	10:20 am	8737	814.00	
181		Davao	PR157	MONVE	2:35 pm	3:10pm	8737	915.00	
781		Manila	PR182	FRIDAY	8:50 am	9 25 am	8737	915.00	
781		Manila	and the second se	DAILY	7:30 am	8.50 am	8737	2,345.00	
781			PR164	FRIDAY	11:35 am	12:55 am	B737	2,345.00	
781		Manila	PR162	TH/SA	12:10 pm	1:30 pm	8737	2,345.00	
81		Manila	PR184	DAILY	2:25 pm	3:45 pm	B737		
	1000	Manila	PR186	DAILY	3:40 pm	5:00 pm	B737	2,345.00	
ALBAYOG	e (se i P)				······································		0.01	2,345.00	
470 A TA DUAN		Manita	PR360	EX WE-SA	4:45 pm	6:10 pm	F50	121200	0.75
TARMAN	UCRW)			· · · · · · · · · · · · · · · · · · ·		yiypii		1,342.00	
454		Manila	PR358	EX MO-WE	1:35 pm	3:00 pm	560		0.75
8U (CEB))					0.00 pm	F50	1,300.00	
120		Bacolod	PR370	DAILY	7:00 am	7.35	0707		10.00
224		Betuan	PR465	TU/TH/FR	9.00 am	7:35 am	8737	752.00	
24		Butuan	PR467	MO/SA		9:50 am	F50	796.00	
28		Cagayan	PR175	MOAVE/SA	12.10 pm	1:00 pm	F50	796.00	
50	1.1.1.1.1.1	Cotabato	PR439	MONVE	6:00 am	6:40 am	B737	1.041.00	
98	1.1.1	Davao	PR409	DAILY	11:25 am	12:20 pm	B737	1,192.00	
			111102	UNILE	5:35 am	6:30 am	A300 C	1,440.00	1. A.
98		Davao	PR459	DAILY			Y	- 1,145.00	
04	1	Dipolog .		DAILY	6:50 pm	7:45 pm	B737	1,321.00	
31		Domaguete	PR489	TU/TH/FR/SU	9.00 am	9:45 am	F50	743.00	
85			PR367	ex th/su	6:40 am	7:20 am	F50	552.00	
35		Gen. Santos	PR451	DAILY	6:30 am	8.00 am	¹ F50	1,381.00	
65 85		Gen. Santos	PR563	SUNDAY	5:45 am	7:15 am	F50		
		Gen. Santos	PR455	DAILY	3:00 pm	4:30 pm	F50	1,381.00	
33		licito	PR380	DAILY	8:05 am	8:45 am	8737	1,381.00	
53		licilo	PR247	TH/SA	12.35 pm			867.00	
31		Kalibo	PR346	MONVE/FR/SA	. 6:05 am	1:15 pm	B737	867.00	
19		Legazoi	PR362	MOWE	10:25 nm	6:55 am	F50	814.00	
19		Legazoi	PR352	TH/SU	(10.25 am	11:30 am	F50	947.00	
59		Manifa	PR832	DAILY	1:25 pm	2:30.pm	F50	947.00	
	· .	· · · · ·	· · · · · · · ·		6:55 am	8:05 am	A300 C	- 1,973.00	
59		Manila	PR830	n. DAB M		· ·	Υ.	- 1,570.00	;
	1 A		FN03U	DAILY	8,10 am	9:20 am	A300 C	- 1,973.00	
9		Manila	DDA10		· ·	· · ·	Ý.	1,570.00	
		Manila	PR848	DAILY	10:10 am	11:20 am	A300 C	- 1,973 00	
a .	· .	Manita	00445	1			Ŷ	- 1,570.00	
9		Manila .	PR852	DAILY	12:40 pm	1:50 pm	A300 C		
			х.				7300 C	- 1,973.00	
5 9		Manila	PR844	DAILY	2.30 pm	3;40 pm		- 1,570.00	1
						A'44 hui	A300 Q.	- 1.973.00	I
				And the second s			Y	1,570.00	

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PHILIPPINE AIRLINES, INC. DOMESTIC FLIGHT SCHEDULE (DFS01-96) EFFECTIVE: 31 MARCH 1996

<u>GFFECTIN</u> SECT	<u>VE: 31</u>	MARCH 1998	FLICHT		. Le l'a dy Long al de la sub-l'an se l'a		- AIC	n, singabaa	ONE-WAY	YERUNAL
	FRQM	70	NUMBER	FREQUENCY	LEAVE	ARRIVE	<u><u><u>YPE</u></u></u>		FARE(PHP)	FEE
EBUICER	1	an a		and and a marked to be a first spin state.	************************* ***********	n Ean ann Albail an Anna Anna Anna Anna Anna Anna Anna	ala marin'i Calinda'i	* *** ***************		10.60
569	at.	Manila	PR842	FRIDAY	4:15pm	5:25 pm	A300	C Y	1,973.00 1,570.00	
569		Manila	PR856	DAILY	5:00 pm	6:10 pm	A300	Ċ Y	- 1,973.00 - 1,570.00	
569		Manila	PR854	MONVE/SA	5:40 pm	6:50 pm	A300	ċ	- 1,973.00	
569		Manila	PR834	DAJLY	7:10pm	8:20 pm	A300	Y C	- 1,570.00 - 1,973.00	
589		Manila	PR433	WE/SU	8:00.pm	9:10 pm	B747	ç	- 1,570.00 - 1,973.00	
569		Manila	PR433	THURSDAY	8:00 pm	9:10 pm	A300	Y C	- 1,570.00 - 1,973.00	•
	-		PR866	DAILY	10:20 pm	11:30 pm	B737	Y.	 1,570.00 1,423.00 	
569		Manila	PR461	TU/TH/SU	6:10am	7:10 am	F50		839.00	
237		Ozamis	PR441	TU/FR	12:10 pm	1:10 pm	F50		830.00	
237		Ozamis	PR483	DAILY	7:55 am	8:55 am	F50		848.00	
281		Pagadian Dia Deisecan					8737		1,802.00	
578		Plo. Princesa via Iloilo	PR247	TH/SA	12:35 pm	2.55 pm				
174		Surigao	PR473	TU/TH/FR/SA	10:25 am	11:10 am	F50		665.00	
152		Tacloban	PR392	MO/WE/SA	8:45 am	9:20 sm	8737		838.00	
74		Tagoitaran	PR363	EX TU/FR	6:10 am	6:35 am	F50		403.00	
74		Tagoilaran	PR375	MONVE/SA	4:25 pm	4:50 pm	F50		403.00	
280		Tandag	PR475	MOWE/SA	9:00 am	10:00 am	F50		845.00	
431		Zamboanga	PR349	tuatkarsu	5:00 sm	6.00 ans	8737		1,409.00	1. A. A.
431		Zemboenge	PR399	MO/WE/SA	9:00 am	10:30 am	F50		1,240.00	
OTABATO	0 (080)									1.60
143		Cagayan	PR497	MOME	1:20 pm	1:55 pm	8737		814.00	
350		Cebu	PR440	TH/SU	11:00 am	11:50 am	B737		1,192.00	
887		Manila	PR188	QAYLY	12:50 pm	2:20 pm	8737		2,629.00	
241		Zamboanga	PR495	TU/FR	8:20 am	9:00 am	B737		1,078.00	
AET (OTE	<u>.</u>									0.75
215	Ŷ	Manila	PR266	TU/FR	1:25 pm	2:15 pm	F50		772.00	2.1
AYAQ (D)	VOI									1.60
181		Cegayen	PR122	TH/SU	8:30 am	9:05 am	8737		915.00	
181		Cagayan	PR156	FRIDAY	10:05 am	10:40 am	8737		815.00	;
398		Cebu	PR410	DAILY	6:10 sm	7:00 ani	A300	Ç.	- 1,440.00 - 1,145.00	
398		Cebu	PR460	DAILY	8:45 pm	9:40 pm	8737	•	1,321.00	
		Manila	PR810	DAILY	7:50 am	9:25 am	A300	C	- 3,218.00	
9 69		N10(())4	enol0		F.04 B(1)	A.F.A.1811		Ϋ́	2,584.00	
000		Manila	PR812	DAILY	2:00 pm	3:35 pm	A300	ċ	3,218.00	· · · .
969		273 CH (11	CIVI4	WEVE 1	Trod hu	Area but		v.	- 2,564.00	
969		Manila	PR814	DAILY	7:40 pm	9:15 pm	A300	ċ	- 3,218,00 - 2,584,00	
			0004/0	huv	0-20	11:00	8737	1	2,199.00	· · · · ·
969		Manila	PR818	DAILY	9:20 pm	11:00 pm				
394		Zamboanga	PR171	MONVE	3:50 pm	4:40 pm	8737	·	1,310.00	0.76
APOLOG ((DPL)			uomitterro	0.60	0.05	F50		743.00	A114
204		Cebu	PR490	MO/TUME/FR	2:50 pm	3:35 pm				
704		Manila	PR168	EX TH/SA	12:00 nn	1:15 pm	8737		2,139.00	
235		Zamboanga	PR465	TU/TH/FR/SU	10:10 am	11:00 am	F50		824.00	1.60
NMAQUE	TE (DOT)			-		A.A.	***		560.00	1.69
131		Cebu	PR368	ex th/su	7:45 am	8:25 am	F50		552.00	1.1
626		Manila	PR250	DAILY	8.05 am	9:15 am	8737		1,931.00	·· -
626		Manila	PR160	TU/TH/SA	3.05 pm	4:15 pm	8737		1,931.00	
EN. SAN	TOS (GES									1.60
485		Cebu	PR452	DAILY	8:25 am	9;55 am	F50		1,381.00	
		Cebu	PR564	SUNDAY	12:25pm	1:55 pm	F50		1,381.00	
400					1.00	0.06	F50		1,381.00	
485 485		Cebu	PR458	DAILY	4:55pm	6:25 pm 9:20 am	F50		1,653.00	

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PHILIPPINE AIRLINES, INC. DOMESTIC FLIGHT SCHEDULE (DFS01-96) EFFECTIVE: 31 MARCH 1996

CT St From	το	FLIGHT NUMBER	FREQUENCY	LEAVE	ARRIVE	AC TYPE	ONE-WAY FARE(PHP)	TERNERA
0!10 (110)	andra maria maria ang kanalang sa	and the state of the second	a santa da angesta da angesta da canana					1.85
163	Cebu	PR381	DAILY	6:40 am	7:15 am	8737	867.00	
163	Cebu	PR248	TH/SA	5:25 pm	6:00 pm	B737	867.00	
569	Gen. Sanlos	PR457	SUNDAY .	9:45 am	11:25 am	F50	1,653.00	
450 - • · · · · · · · · · ·	- Manila	PR140	DAILY	9:35 am	10:35 sm	B737	1,460.00	
450	Manila	PR148	DAILY	12:10pm	1.10 pm	8737	1,460.00	
450	Manila	PR142	OAILY	4:00 pm	5:00 pm	8737	1,450.00	
450		PR146	DAILY	8:10 pm	9:10pm	8737	1,460.00	
	Manila					8737		
450	Manila	PR1460 (*)	DAILY	9:15 pm	10:15 pm		1,460.00	
431 Entre ination #	Plo. Princesa oht as need arises	PR247	TH/SA	2:05 pm	2.55 pm	8737	1,409.00	
- EXPR SOCION IN LO (JOL)	gin as need anses	h.						
54	Zamboanga	PR460	DAILY	12:30 pm	1:05 pm	F50	613.00	•
54.	Zamboanga	PR482	DAILY	2:55 pm	3:30 pm	F50	613.00	
LIBO (KLO)	zamovanya	FILION		* vypit	0.001411		015.00	0.76
31	Čebu	PR345	MONVE/FR/SA	7:20 am	8:10 am	F50	814.00	VitV
48	Manila	PR322	DAILY	10:45 am	11:35 am	8737	1,187.00	
48			DAILY	4:10 pm	5:00 pm	8737		
	Manila	PR328					1,187.00	
48 QAQ (LAQ)	Manita	PR326	DAILY	5:15 pm	6:05 pm	8737	1,187.00	1.50
	Rauto	PR219	MONDAY	1:35 pm	2:35 pm	F50	811.00	1.00
67 09	Basco					8737	1,350.00	
	Manila	PR229	WE/SU	9:40 am	10:35 am			
43	Tuguegareo	PR221	MO/FR	11:30 am	12.10 pm	8737	639.00	1.50
GAZPI (LGP)		- DDDC	HAILE	0.15	à.10	500	047.00	1.50
19	Cebu	PR361	MOAVE	2:35 pm	3:40 pm	F50	947.00	
19	Cebu	PR351	TH/SU	2.65 pm	4:00 pm	F50	947.00	
28	Manila	PR276	MO-SA	8:10 am	9:00 am	8737	1,134.00	
28	Manila	PR178	WEDNESDAY	10:15 am	11:05am	8737	1,134.00	
28	Manila	PR278	TU/FR/SU	11:35 am	12:25pm	8737	1,134.00	
28	Manifa	PR280	EX TU/TH	4:35 pm	5:25 pm	8737	1,134.00	
91	Masbata	PR297	MONVE	11:25 am	12:00 nn	F50.	448.00	
70	Virac	PR293	MONVE	12:30 pm	1:05 pm	F50	393.00	1.1
MAURAO (NBO)								0.75
52	Manila	PR240	FR/SU	10:10 am	10:50 am	F50	607.00	
NILA (MNL)					•			50.00
78	Bacolod	PR131	DAILY	3;30 am	4:40 am	8737	1,535.00	· · · · ·
78	Bacolod	PR133	DAILY	11;25 am	12:30 pm	8737	1,635.00	
78	Bacolod	PR135	DAILY	3:20 pm	4:25 pm	B737 :	1,535.00	
78	Bacolod	PR137	DAILY	6:10 pm	7:15 pm	8737	1,535.00	
18	Bacolod	PR1370 (*)	DAILY	7:15 pm	8:20 pm	8737	1,535.00	
13	Bagulo	PR204 (1)	MONVE/FR/SU	8:40 sm	9:20 am	8737	1,001.00	
12	Basco	PR222	MOÁVE	9:05 am	11:05 am	F50	1 870.00	
72	Basco	PR226	FRIDAY	6:45 am	8:45 am	F50	1,870.00	
87	Butuan	PR477	MOAVE/FR/SU	12:50 pm	2:15 pm	8737	2,362.00	4
81	Cagayan	PR181	DAILY	5:00 am	6:30 am	8737	2 345.00	
81		PR183	DAILY	12:15pm	1:45 pm	8737	2,345.00	
	Cagayan		DAILY					
81	Cegayan	PR185		1:25 pm	2:50 pm	8737	2 345.00	
81	Cagayan	PR161	FRIDAY	6:25 sm	7:50 em	8737	2 345.00	
81	Cegayan	PR163	TH/SA	9.40 am	11:10 am	8737	2,345.00	
70	Calbayog	PR359	EX WE/SA	2:55 pm	4:20 pm	F50	1,342.00	
54	Catarman	PR357	EX MONVE	11:45 em	1:10 pm	F50 .	1,300.00	
89	Cebu	PR829	OAILY	3-20 am	4:35 am	A300 (
							1,570.00	
69	Cebu	· PR434	WE/SU	5:30 am	6:40 am	8747 (0 1,973.00	
	4					``	1 - 1,670.00	
569	Сери	PR434	THURSDAY	5:30 am	6:40 am	A300 (0 1,973.00	
							1,570.00	

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PHILIPPINE AIRLINES, INC. DOMESTIC FLICHT SCHEDULE (DF801-98)

69 Cebu PR81 DALLY 4.30 am 5.45 am A300 Y 6.5 69 Cebu PR853 MCWE/SA 7:15 am 8.25 am A300 Y 1.57 69 Cebu PR843 MCWE/SA 7:15 am 8.25 am A300 Y 1.57 69 Cebu PR849 DALY 10 20 am 9:10 am A300 Y 1.57 69 Cebu PR849 DALY 10 20 am 11:30 am A300 Y 1.57 69 Cebu PR843 DALY 12 20 pm 1.30 pm A300 Y 1.57 69 Cebu PR855 DALY 2.50 pm 4.00 pm A300 Y 1.57 69 Cebu PR855 DALY 2.50 pm 4.00 pm A300 Y 1.57 63 Cebu PR857 DALY 9:0 form 1.50 am 873 2.26 647 Davao PR817	FECTIVE: 31 M ST IT FROM	TO	FLIGHT NUMBER	FREQUENCY	LEAVE	ARRIVE	A/C TYPE	ohe-way Fare(php)	Trans State
99 Cebu PR831 DAUY 4.30 am 5.45 am A300 C 5.97 Y 5.57 99 Cebu PR853 MOWE/SA 7.15 am 8.25 am A300 C 197 Y 1.57 199 Cebu PR847 EX TH/SU 8.00 am 9.10 am A300 C 1.97 Y 1.57 59 Cebu PR849 DALLY 10.20 am 11.30 am A300 C 1.97 Y 1.57 59 Cebu PR843 DALLY 12.20 pm 1.30 pm A300 C 1.97 Y 1.57 59 Cebu PR855 DALLY 2.50 pm 4.00 pm A300 C 1.97 Y 1.57 59 Cebu PR857 DALY 0.00 pm 1.00 pm 5.00 pm 7.127 1.242 59 Cebu PR857 DALY 0.00 pm 5.00 pm 7.20 pm 7.255 59 <td< td=""><td>HADIRI</td><td>an l</td><td>702/1</td><td>EDIDAY</td><td>6 10 am</td><td>7:20 am</td><td>A300</td><td>C - 1,973.00</td><td>47.Q</td></td<>	HADIRI	an l	702/1	EDIDAY	6 10 am	7:20 am	A300	C - 1,973.00	47.Q
97.44 Cabu PR853 MOWE/SA 7:15 am B25 am A300 C 197 199 Cabu PR853 MOWE/SA 7:15 am B25 am A300 C 197 199 Cabu PR849 DALLY 10:20 am 11:30 am A300 C 197 199 Cabu PR849 DALLY 10:20 am 11:30 am A300 C 197 199 Cabu PR843 DALLY 12:20 pm 1:30 pm A300 C 197 -1:57 199 Cabu PR855 DALLY 2:50 pm 4:00 pm A300 C 1:97 199 Cabu PR857 DALLY 8:00 pm 1:05 pm B737 2:26 199 Cabu PR857 DALY 8:00 pm 1:05 pm B737 2:26 199 Davao PR859 DALY 1:05 pm B737 2:26 199 Davao PR813 DALY 1	9	Ceou	PROTI	TUON					
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28 Legazpi PR279 EX TU/TH 3.00 pm 3.65 pm B/3/ 1,13 52 Mamburao PR230 FR/SU 9.05 am 9.45 am F50 60 54 Marinduque PR231 DÀILY 6.00 am 8.40 am F50 61 54 Marinduque PR257 EX MOW/E 8.15 am 9:25 am F50 1.08 70 Masbate PR261 DAILY 6:10 am 7:10 am F50 81 87 Naga PR261 DAILY 6:10 am 7:10 am F50 81 67 Naga PR263 MOWE/SU 11:50 am 10:15 am A300 C - 2.01 83 Pto. Princesa PR169 DAILY 9:05 am 10:15 am A300 C - 2.01 74 Roxas PR169 DAILY 5:20 am 6:20 am B737 1.25 74 Roxas PR169 DAILY 5:20 am 6:20 am F50								1,134.00	
S2 Mamburao PR230 FR/SU 9/05 am 9/07 a								1,134.00 607.00	
54 Marinduque PR231 DAILY 6:00 am 0:40 am 1:00 1:00 70 Masbate PR257 EX.MOWE 8:15 am 9:25 am F50 1:08 70 Masbate PR253 MOWE 8:15 am 9:25 am F50 1:08 70 Masbate PR253 MOWE 8:15 am 9:25 am F50 1:08 70 Masbate PR263 MOWE 8:10 am 7:10 am F50 81 87 Naga PR263 MOWE/SU 11:50 am 12:50 pm F50 81 83 Pto. Princesa PR195 DAILY 9:05 am 10:15 am A300 C 2:01 74 Roxas PR169 DAILY 5:20 am 6:20 am B737 1:25 74 Roxas PR169 DAILY 5:20 am 6:20 am B737 1:25 74 Roxas PR169 DAILY 5:20 am 6:20 am B737 1:25			PR230					613.00	
70 Masbate PR257 EX.MOV/2 6.15 ml 9.25 ml 6.30 ml 9.30		Marinduque						1,080.00	4
70 Masbale PR253 MOVVE 0.10 am 7.10 am F50 81 67 Naga PR261 DAILY 6:10 am 7:10 am F50 81 67 Naga PR263 MOWE/SU 11:50 am 12:50 pm F50 81 67 Naga PR263 MOWE/SU 11:50 am 12:50 pm F50 81 67 Naga PR263 MOWE/SU 11:50 am 10:15 am A300 C - 2.01 83 Pto. Princess PR165 DAILY 5:20 am 6:20 em B737 1,25 74 Roxas PR169 DAILY 5:20 am 6:20 em B737 1,25 74 Roxas PR169 DAILY 8:30 am 9:30 am F50 84 74 San Josa PR129 MOWE/TH/SA 9:05 am 10:05 am B737 1,06 37 San Josa PR129 MOWE/TH/SA 9:05 am 10:05 am F50 81<								1,080,00	- ,
67 Naga PR261 Dr01 11:50 pm F50 81 67 Naga PR263 MO/WE/SU 11:50 pm F50 81 67 Naga PR263 MO/WE/SU 11:50 pm F50 81 83 Pto Princess PR195 DAILY 9:05 am 10:15 am A300 C - 2.01 74 Roxas PR189 DAILY 5:20 am 6:20 em B737 1,25 74 Roxas PR189 DAILY 5:20 am 6:20 em B737 1,25 74 San Fernando PR206 (1) DAILY 8:30 am 9:30 am F50 84 37 San Josa PR129 MO/WE/TH/SA 9:05 am 10:05 am F50 81 67 Tablas PR323 TU/TH/SA 9:05 am 10:05 am F50 81 65 Tacloban PR191 CAILY 4:00 am 5:50 pm 8737 1,76 65 Tacloban								811.00	
67 Naga PR203 Monteled Monteled Press A300 C 2.01 Y 1.60 Y <								811.00	
74 Roxas PR169 DAILY 5:20 am 6:20 am B737 1,25 41 San Fernando PR206 (1) DAILY 8:30 am 9:30 am F50 84 37 San Josa PR129 MONVE/TH/SA 9:50 am 10:35 am B737 1,05 87 Tablas PR323 TU/TH/SA 9:05 am 10:05 am F50 84 65 Tacloban PR191 CAILY 4:00 am 5:15 am 8737 1,76 65 Tacloban PR193 CAILY 4:40 pm 5:50 pm 8737 1,76 65 Tacloban PR193 CAILY 4:40 pm 5:50 pm 8737 1,76 65 Tacloban PR193 CAILY 6:05 pm 7:15 pm 8737 1,76 65 Tacloban PR183 CAILY 6:05 pm 7:15 pm 8737 1,76 65 Tacloban PR187 MONVE/SA 2:10 pm 4:05 pm F50 1,77						•			
74 Roxas PR169 DALLY 8:30 am 9:30 am F50 84 41 San Fernando PR208 (1) DALLY 8:30 am 9:30 am F50 84 37 San Josa PR129 MOWE/TH/SA 9:50 am 10:35 am 8737 1,00 87 Tablas PR323 TU/TH/SA 9:05 am 10:06 am F50 81 87 Tablas PR323 TU/TH/SA 9:05 am 10:06 am F50 81 85 Tacloban PR191 DAILY 4:00 am 5:15 am 8737 1,76 65 Tacloban PR191 DAILY 4:40 pm 5:50 pm 8737 1,76 65 Tacloban PR183 DAILY 6:05 pm 7:15 pm 8737 1,76 65 Tacloban PR183 DAILY 6:05 pm 7:15 pm 8737 1,76 65 Tacloban PR183 DAILY 6:05 pm 7:15 pm 8737 1,76	00	5 CO. 1 4 K MAAAA				0.00	0747	Y 1,605.00 1,257.00	
Ai San Fernando PR208 (1) DAILY 8:30 am 9:30 am <t< td=""><td>74</td><td>Roxas</td><td></td><td></td><td></td><td></td><td></td><td>840.00</td><td></td></t<>	74	Roxas						840.00	
37 San Jose PR129 MOWE/TH/SA 9.00 am 10.05 am 6101 111 167 Tables PR323 TU/TH/SA 9.05 am 10.05 am 150 81 167 Tables PR323 TU/TH/SA 9.05 am 10.05 am 850 81 65 Tacloban PR191 CAULY 4:00 am 5:50 pm 8737 1.76 65 Tacloban PR291 DALLY 4:40 pm 5:50 pm 8737 1.76 65 Tacloban PR193 DALLY 6:05 pm 7:15 pm 8737 1.76 65 Tacloban PR183 DALLY 6:05 pm 7:15 pm 8737 1.76 65 Tacloban PR187 MOWE/SA 2:10 pm 4:05 pm 750 1.73 19 Tagbilaran PR169 TU/TH/FR/SU 12:10 pm 2:05 pm 750 1.72 19 Tagbilaran PR169 TU/TH/FR/SU 12:10 pm 8:737 1.20				OALY				1,065.00	
67 Tables PR323 10/17/38 5.05 km 6.05 km 7.15 km 87.37 1,76 65 Tacloban PR191 CAULY 4.00 am 5.15 am 87.37 1,76 65 Tacloban PR291 CAULY 4.00 am 5.15 am 87.37 1,76 65 Tacloban PR291 CAULY 6.05 pm 7.15 pm 87.37 1,76 65 Tacloban PR183 CAULY 6.05 pm 7.15 pm 87.37 1,76 65 Tacloban PR183 CAULY 6.05 pm 7.15 pm 87.37 1,76 65 Tacloban PR183 CAULY 6.05 pm 7.15 pm 87.37 1,76 65 Tacloban PR187 MOWE/SA 2.10 pm 2.05 pm 750 1,73 519 Tagbilaran PR169 TUTHVF R/SU 12.10 pm 2.05 pm 7.37 1.20			PR129					811.00	
S5 Tacloban PR191 LAULY 4.40 pm 5.50 pm 8737 1.76 65 Tacloban PR291 DAILY 4.40 pm 5.50 pm 8737 1.76 65 Tacloban PR183 DAILY 6.05 pm 7:15 pm 8737 1.76 65 Tacloban PR183 DAILY 6:05 pm 7:15 pm 8737 1.76 519 Tagbilaran PR169 TUTHVFR/SU 12:10 pm 2.05 pm 750 1.73 519 Tagbilaran PR169 TUTHVFR/SU 12:10 pm 2.05 pm 750 1.73	67							1,768.00	
K5 Tackoban PR291 DAULY 6:05 pm 7:15 pm 8737 1.76 K65 Teckoban PR193 DALLY 6:05 pm 7:15 pm 8737 1.76 K65 Teckoban PR193 DALLY 6:05 pm 7:15 pm 8737 1.76 S19 Tegbilaran PR169 TU/TH/F/SU 12:10 pm 2:05 pm F50 1.73 S19 Tegbilaran PR169 TU/TH/F/SU 12:10 pm 2:05 pm F50 1.73 S19 Tegbilaran PR169 TU/TH/F/SU 12:10 pm 2:05 pm F30 1.20								1,768.00	
65 Teologian PR187 MOWE/SA 2:10pm 4:05pm F50 1,73 319 Teologian PR187 MOWE/SA 2:10pm 2:05pm F50 1,73 519 Teologian PR169 TU/TH/FR/SU 12:10pm 2:05pm F50 1,73							8737	1,763.00	
519 Tegbilaren PR169 TU/TH/FR/SU 12:10 pm 2:05 pm F50 1,73							F 50	1,731.00	
219 1050 12 10 m 8737 1.4								1,731.00	
358 Tuguegarao PR220 MO/PR 9.00 Bin Millopin Diot		Tuguegarao	PR220	MO/FR	9,50 Bm	12:10 pm	8737	1,208.00	

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PHILIPPINE AIRLINES, INC.	
DOMESTIC FLIGHT SCHEDULE	(DFS01-96)
EFEECTIVE: 31 MARCH 1996	

• .		T SCHEDULE (ARCH 1996	(DFS01-96)					· ·	<u> </u>
SECT DIST	FROM	TO	FLIGHT NUMBER	FREQUENCY	LEAVE	ARRIVE	A/C TYPE	ONE-WAY FARE(PHP)	TERMINAL FEE
MANILA									50.00
356	increases and incre	Tuquegarao	PR238	SATURDAY	10:00 am	10:55 am	B737	1,208.00	
356		Tuguegarao	PR216	WE/SU	11:25 am	12:20 pm	8737	1,208.00	
359		Virac	PR269	TU/TH/SA	8:40 am	9:30 am	B737	1,216.00	
359		Virac	PR271	FRIDAY	1:50 pm	2:40 pm	8737	1,216.00	
852		Zamboanga	PR123	DAILY	4:20 am	6:00 am	8737	2,535.00	
852	1.1	Zamboanga	PR125	DAILY	5:15 pm	6:50 pm	B737	2,535.00	
MARINDI	JQUE (MRQ)					• • • •			0.75
154		Manila 👘	PR232	DAILY	7.05 am	7:45 am	F50	613.00	
MASUAT	E (MBT)		· · · · ·						0.75
91	+	Legazpł	PR298	MONVE	9:50 am	10:25 am	F50	448.00	
370	:	Manila	PR258	EX MOAVE	9:55 ám	11:05 am	F50	1,060.00	
370	· · · · · · · · · · · · · · · · · · ·	Manila	PR254	MONVE	12:30 pm	1:40 pm	F50	1,080.00	
NAQA (W	(NP)				÷		F.C.	014.00	0.75
267		Manila	PR262	DAILY	7:35 am	8:35 am	F50	811.00	:
267		Manila	PR264	MONVE/SU	1:15 pm	2:15 pm	F50	811.00	0.75
OZAMIS	(OZC)	~ .	00100	ຈັບເຫັນບໍ່ການ	7.75	0.26	F50	830.00	0.75
237		Cebu	PR462	TU/TH/SU	7:35 am	8:35 am	F50	830.00	
237		Cebu	PR442	TU/FR	1:35pm	2:35 pm		0.00.00	0.75
	AN (PAG)	Cebu	PR484	DAILY	5:05 pm	6:05 pm	F50	848,00	V.IV
281		Zamboanga	PR487	DAILY	9:20 am	10:00 am	F50	699.00	
aro per	NCESA (PPS	Zaniooanga	F(49/	DALT	9.40 din	10.00 8/11			1.50
578		Cebu via Iloilo	PR248	TH/SA	3:45 pm	6:00 pm	B737	1,802.00	
431		lloio	PR248	TH/SA	3:45 pm	4:35 pm	8737	1,409.00	
583		Manila	PR196	DAILY	11:15 am	12.25 pm	A300	C - 2,016.00	
								Y - 1,605.00	
BOXAS (RXS)								1.50
374		Manila	PR190	DAILY	7:20 a.m	8:10 am	8737	1,257.00	
SAN FER	NANDO (SF	E. To operate all	ective 15 April 199						1.50
241		Manifa	PR207	DAILY	10:00 am	11:00 am	<u>F50</u>	840.00	
SAN JOS	E (\$JI)								1.50
237		Manila	PR130	MONVE/TH/SA	11:15 am	11:55 am	8737	1,065.00	
SURIGA	<u>) (SUG)</u>	•							0.75
174		Cebu	PR474	TU/TH/FR/SA	11:35 am	12:20 pm	F50	665.00	0.75
TABLAS	((188)			THEFT	40.00	14.10	F50	044.00	0.75
267		Manila	PR324	TU/TH/SA	10:30 am	11:30 am	100	811.00	1.50
	AN (TAC)	C.A.L	PR393	MONVE/SA	10.00 am	10:30 am	8737	838.00	1.00
152		Cebu	PR393 PR192	DAILY	6:15 am	7:20 am	8737	1,768.00	
565 565		Manila Manila	PR192 PR292	DAILY	6:50 pm	7:55 pm	8737	1,768.00	
565		Manila	PR292 PR194	DAILY	8:15 pm	9:20 pm	8737	1,768.00	
	ARAN (TAG)	Inding	10134		0.1091			11.00.00	0.75
74	лжия (12 0 9)	Cebu	PR364	EX TU/FR	7:00 am	7:25 am	F 50	403.00	
74	;	Cebu	PR374	MONVE/SA	4:30 pm	4:55 pm	F50	403.00	
619		Manila	PR170	TU/TH/FR/SU	2:50 pm	4:45 pm	F50	1,731.00	
619		Manila	PR168	MOAVE/SA	5:15 pm	7:10 pm	F50	1,731.00	
TANDAG	(106)								0.75
280		Себи	PR476	MONVE/SA	10 25 am	11:25 am	Ě50	845.00	
	WI (TWT)								0.75
337		Zamboanga	PR494	DAILY	11:55 am	12.55 pm	F50	994.00	
	ARAO (TUG								0.75
317		Basco	PR225	WEDNESDAY	- 1:35pm	2:35 pm	F50	942.00	
356		Manila	PR237	SATURDAY	11:45am	12:35 pm	8737	1,208.00	
356		Manita	PR217	WE/SU	1:20 pm	2:10 pm	8737	1,208.00	
356			PR221	MO/FR	1:10pm	2:00 pm	8737	1,208.00	

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PHILIPPINE AIRLINES, INC. DOMESTIC FLIGHT SCHEDULE (DFS01-96) EFFECTIVE: 1 MARCH 1998

SECT		MARCH 1990	FLIGHT	<u>* Turbu in internet de Turbunden de </u>	and the second secon		AIC	ONE-WAY	TERMAL
DIST	FROM	TO	NUMBER	FREQUENCY	LEAVE	ARRIVE	TYPE	FARE(PHP)	fee.
VIEACT	VRCI	an a		₽₩₽₩₽₽₽₽₽₽₩₽₽₩₩₽₩₽₽₩₽₽₩₽₽₩₽₽₩₽₽₩₽₽₩₽₽₩₽	an a	nia arystration in 1990-1990-199	anggeneraties, en alle des	900 to 1. Fin 96 marc of 2005 1	0.78
70		Legezpi	PR294	MOAVE	1:30 pm	2:05 pm	F50	393.00	
359		Manila	PR270	TU/TH/SA	10.10 am	10:55 am	B737	1,218.00	
359		Manita	PR272	FRIDAY	3:20 pm	4:05 pm	8737	1,216.00	
	ANGA (ZAM	}							1.50
431		Cebu	PR338	TU/FR -	9:40 am	10:35 am	B737	1,409.00	
431		Cebu	PR350	MO/WE	5:20 pm	6:15pm	8737	1,409.00	
431		Cebu	PR398	TH/SA/SU	1:35 pm	3:05 pm	F50	1,240.00	
241		C.dobeto	PR495	TU/FR	7:00 am	7:40 sm	8737	1,076.00	
394		Davao	PR172	THISU	7.00 sm	7:50 sm	B737	1,310.00	
235		Dipolog	PR485	MO/TU/WE/FR	1:35 pm	2:25 pm	F50	824.00	
154		Jolo	PR479	DAILY	11:30 am	12.05 pm	F50	613.00	
154	19 A.	Jolo	PR481	DAILY	1:55 pm	2:30 pm	F50	613.00	
852		Manila	PR124	DAILY	7:10 sm	8:40 am	8737	2,535.00	
852		Manila	PR126	DAILY	7:50 om	9:20 pm	8737	2,535.00	
187		Pagadian	PR488	DAILY	4:00 om	4:40 pm	F50	699.00	
337		Tawl-Tawi	PR493	DAILY	10:30 am	11:30 am	F50	994.00	

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		Effective May 31, 1996	<u> 4</u> 31, 1996			
Daily Flights	AIRCRAFT	FLIGHT NUMBER	LEAVE	ARRIVE	*ONE WAY PROMO FARE	TERMINAL AS FEE
MANILA to KALIBO	5-57 25-57	GAP 751 GAP 753	7:50 am 2:10 pm	9:00 am 3:20 pm	~ ~	978 53.00 53.00
KALIBO to MANILA	C YS-11 YS-11	GAP 752 GAP 754	9:40 am 4:00 pm	10:50 am 5:10 pm	830.00 830.00	978 3.75 3.75
MANILA to PUERTO PRINCESA PUERTO PRINCESA TO MANILA	+ 8737 + 8737	GAP 531 GAP 532	9:50 am 11:40 am	11:00 am 12:50 pm	1,200.00	1, 4co53.00 4.50
MANILA to ILOILO	B737 B737	GAP 571 GAP 573	6:20 am 6:10 pm	7:20 am 7:10 pm	1,100.00 /, 1,100.00	1,3SC - 52.00 53.00
ILOILO to MANILA	. 8737 8737	GAP 572 GAP 574	8:00 am 7:50 pm	9:00 am 8:50 pm	1,100.00 /	1,352 4.50 4.50
MANILA to ZAMBOANGA ZAMBOANGA to MANILA	8737 8737	GAP 871 GAP 872	1:40 pm 3:50 pm	3:10 pm 5:20 pm	2,190.00 2 2,190.00	2,315,-53.00 4.50
MANILA to SUBIC	YS-11 YS-11 B737	GAP 980 GAP 982 GAP 970	11:40 am 6:00 pm 9:40 pm	12:10 pm 6:30 pm 10:10 pm	379.00 379.00 505.00	377 53.00 53.00 505 - 53.00
SUBIC to MANILA	B737 YS-11 VS-11	GAP 971 GAP 981 GAP 981	5:00 am 6:30 am	5:30 am 7:00 am	505.00 379.00	+ + + +
"Good only up to 30 June 1996. +Aviation Security Fee only. Schedule is subject to CAB approval. Rates are subject to change without prior notice. BOOK YOUT FESETVATIONS NOW AND ENJOY THE F		enjoy the promo fare!	are!	1:20 pm	379.00	+3.00
To reservations and ucketing please call: SUBIC: (047) 252-7256/67/68 ILOILO: (033) 79115. 335-1347 to 49. 77939 ILOILO: (033) 79115. 335-1347 to 49. 77939 Aix (062) 993-2587/1940 Or call your Travel Agent. Air Philippines Corporation Tel # 526-4741, Fax # 521-6747/2603	rec call: 7939 fax: (04 7939 fax: (05 7939 fax:	tax: (047) 252-7258 fax: (033) 3200-965, 335-1349 fax: (062) 993-1940 526-4741, Fax #	PUERTO PRINCESA KALIBO: (035 521-6747/2603	, ICESA: (048) 433-2764/7003 (036) 662-4444/5555/8888		fax: (048) 433-7006 fax: (036) 662-4540
Arron wagsaysay Center, Koxas Boulevard, Manila	s boulevard, Ma	nia	•			

Appendix 2.3.5

CEBU PACIFIC CEBU PACIFIC CEBU PACIFIC CEBU PACIFIC CEBU PACIFIC CONTRACTOR AVE., Pasig # 636-4938 to 45

ROUTE	FLIGHT NO.	ETD	ÉľA	One-wa Yalue Fare	iy Fares Normal Fare
MNL - CEB	53-561	0800H	0910H	PHP 979	PHP 1,479
	51-565	1220H	1330H	รู้ (Valuo fero - นกษา	2 2
	51-567	1610H	172011	15 June 1996)	
	51-569	1850H	20001(
				×	
CEB - MNL	53-562	1000H	1110H		
	5J-566	1420H	1530H		
	5J-568	1810H	1920H		
	5J-570	2050H	2200H		
			/992-50 8 709	0.12.11.02.02.02	100200033000
MNL · ILO	5J-453	0400H	0505H	PHP 979	PHP 1,322
	51-457	1500H	1605H	(Vulso faro - uatil	2
				15 Jane 1996)	
ILO • MNL	51-454	0555н	0700H	· · ·	
	5J-458	1655H	1800H		
<u> </u>	<u> </u>		210.000		<u>, 1</u>
MNL + CGY	5J-385	0520H	065011	PHP 1,699	PHP 2,031
A.	51-387	1010H	1140H	(Valuo faro - until	<u></u>
· .				15 June 1996)	
CGY · MNL	5J-386	0740H	10100		
	51-388	1230H	1400H		
* MNL · DVO	53-961	0500	0650	PHP 1,799	PHP 2,519
	53-967	1500	1650	(Valuo faro - uatil	
				15 August 1996)	
* DVO • MNL	5J-962	0740	0930		
	5J-968	1740	1930	30000	

* Exclusive of Aviation Security Fee and Terminal Fee

* Fares & schedules are subject to gov't approval * MNL/DVO/MNL - start date 23 May 1996

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	ETO TO	EiA	610 1	A L			ETO	ETA	ET0	ETA					e	ETA	ETD .	ETA :	ETD.	ETA						-	er A	
决	Sun 06:50	08:10	09:10	02:01		Sin	11:30	12:30	13:30	14:30				Sun	15:40	16:50	17:50	19:00	••••							Sun	22:40	
	Sat 06:50	01:20	09:10	10:30	*	s at	11:30	12:30	13:30	14:30	·		17S ^X	Sat	15:40	16:50	17:50	19:00				-	_			Sat		
MANILA-CAGAYAN DE ORO-MANILA FLIGHTS	Fri 06:50		09:10	10:30	MANILA-ILOILO-MANILA FLIGHTS *	ũ	11:30	12:30	13:30	14:30			MANILA-TACLOBAN-MANILA FLIGHTS ^X	, Curran	15:40	16:50	17:50	19:00								Fri	22:40	
- ORO-M	Thurs 06:50	-{ }	09:10	10:30	MANILA	Thurse	11:30	12:30	· F-	_			IN-MANI	Thurs	15:40	16:50	17:50			-						Thurs		
A YAN DI	Wed 06:50	-{ }	09:10	10:30	4-11-011-0	how		12:30	13:30				ACLOBA	Wed						17:35		18:35	04-721			Wed .	22:40	
11.A-CAG	Tues 06:50		09:10	10:30	MANIL	Ť.,00		12:30					L-AJINAN	Tues	15:40	16:50	17:50	19:00				_				Tues		
MAN	Mon 06:50		03:10			Mon		12:30	13:30				V	Mon	-		17:50								IGHTS	Mon	 	
	211	-44	8L-212	-{			8L - 121	WNL ILO		$\left \cdot \right $					8L-111	MNL TAC	81 - 112	$\left \cdot \right $	81 . 442	MNL TAC		8L - 114			MANILA-HONGKONG-MANILA FLIGHTS	-	8L - 802 HKG MNL	
•	2 2	Ч Ж Х	18	5			81	NW	81	2					8	INW	81	TAC	ά	ĨŽ.W					NG-MA		HK 8]:
	ETO	EIA		ETA	ETO 6T >		ETD	ETA	ETO	ETA	570				ET0	ETA	ETD	ETA	ETO	ETA					NGKO		ET0	
	Sun 07:00	08:10	09:10	02:01	11:20	~~~~	13:30	14:40						Sun	06:60	11:05	12:20	13:55	16-40	17:15		18:30	S-23		וורא-אכ	Sun	19:30 21:25	
	Sat 07:00	01:20	01:60	10:20	11:20		13:30	14:40	17:30	18:40	02-01	20-50	6	Sat	05:60	11:05	12:20	13:55	15-40	17:15		18:30	20.02	•	NAN	Sat		,
FLIGHTS	67:00	08:10	06:10	07-01	11:20		13:30	14:40					FLIGHT	Ē	09:30	11:05	12:20	13:55	15.40	17:15	1	18:30	- 22-22			Г. Г.	19:30 21:25	
MANILA	Thurs 07:00	01.60	09:10	07:01	11:20		13:30	14:40	17:30	18:40	10.40	05.00	MANILA	Thurs	08:30	11:05	12:20	13:55	15-40	17:15		18:30	- 			Thurs		
MANILA-CEBU-MANILA FLIGHTS	Wed 07:00	02:10	09:10	07:01	11:20		13:30	14:40					MANILA-DAVAO-MANILA FLIGHTS	Wed	06:30	11:05	12:20	13:55	15.40	17:15		18:30	3		÷	Wed	19:30 21:25	
NANIL	Tues 07:00	01:20	09:10	07:01	11:20		13:30	14:40	17:30	18:40	10.40	20.50	MANILA	Tues	08:30	11:05	12:20	13:55	15:40	17:15		18:30			·	Tues		
	Mon 07:00	01:80	05:07	07:01	11:20		13:30	14:40	17:30	18:40	10.40	20:50		Mon	05:60	11:05	12:20	13:55	15:40	17:15		18:30	2012			Mon		
	L-101		8L-102		8L-103 MNI CFR		- SL-104	CEBWN		MNL CEB	81 - 10E	CEBWNI				MNL DVO	8L-202	DVO MNL	- <u>81 - 203</u>	WNL DVO		8L-204					81-801 MNL HKG	
	8	2	8	5	α		Ś	ŏ	8	W	ă	o S	31		197	IN .	, <mark>छ</mark>			WW			5]				WN WN	

Fares and Schedules are subject to change without prior notice

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Appendix 2.3,7

REQUIRED TAKE-OFF RUNWAY LENGTH

1. Bacolod Airport

Approximate Takeoff Weight for Manila at Maximum Payload (Source : PAL)

B737-300 :53.4 ton (117,700lbs) A320-200 :66.8 ton (147,300lbs) A300-B4 :137.4 ton (302,900lbs)

Typical Takeoff Runway Length at Sea Level and 30°C

B737-300 : 1,660m A320-200 : 1,860m A300-B4 : 1,670m

Takeoff Runway Length at Each Airport

Airport Elevation : 6. Im (20ft) Reference Temperature : $32.6^{\circ}C$ (90.7°F) Longitudinal Slope of the Runway : 0.15% $a = (1 + 0.07 \times 6.1 / 300) \times (1 + 0.01 \times 2.6) \times (1 + 0.1 \times 0.15) = 1.043$ B737-300 :1,660 x 1.043 = 1,730m A320-200 :1,860 x 1.043 = 1,940m A300-B4 : 1,670 x 1.043 = 1,740m

2. Iloilo Airport

Approximate Takeoff Weight for Manila at Maximum Payload (Source : PAL)

B737-300 :53.1 ton (117,100lbs) A320-200 :66.7 ton (147,000lbs) A300-B4 :137.0 ton (302,000lbs)

Typical Takeoff Runway Length at Sea Level and 30°C

B737-300 : 1,650m A320-200 : 1,850m A300-B4 : 1,660m

Airport Elevation : 8.2m (27ft) Reference Temperature : $32.5^{\circ}C$ ($90.5^{\circ}F$) Longitudinal Slope : 0.15% $a = (1 + 0.07 \times 8.2 / 300) \times (1 + 0.01 \times 2.5) \times (1 + 0.1 \times 0.15) = 1.042$ B737-300 :1,650 x 1.042 = 1,720m A320-200 :1,850 x 1.042 = 1,930m A300-B4 : 1,660 x 1.042 = 1,730m

3. Tacloban Airport

Approximate Takcoff Weight for Manila at Maximum Payload (Source : PAL)

B737-300 :53.5 ton (117,900lbs) A320-200 :66.1 ton (145,700lbs) A300-B4 :138.1 ton (304,500lbs)

Typical Takcoff Runway Length at Sea Level and 30°C

B737-300 : 1,700m A320-200 : 1,870m A300-B4 : 1,680m

Airport Elevation : 1.8m (6ft) Reference Temperature : $31.4^{\circ}C$ (88.5°F) Longitudinal Slope : 0.09% $a = (1 + 0.07 \times 1.8 / 300) \times (1 + 0.01 \times 1.4) \times (1 + 0.1 \times 0.09) = 1.024$ B737-300 : 1,700 x 1.024 = 1,740m A320-200 : 1,870 x 1.024 = 1,910m A300-B4 : 1,680 x 1.024 = 1,720m

4. Legaspi Airport

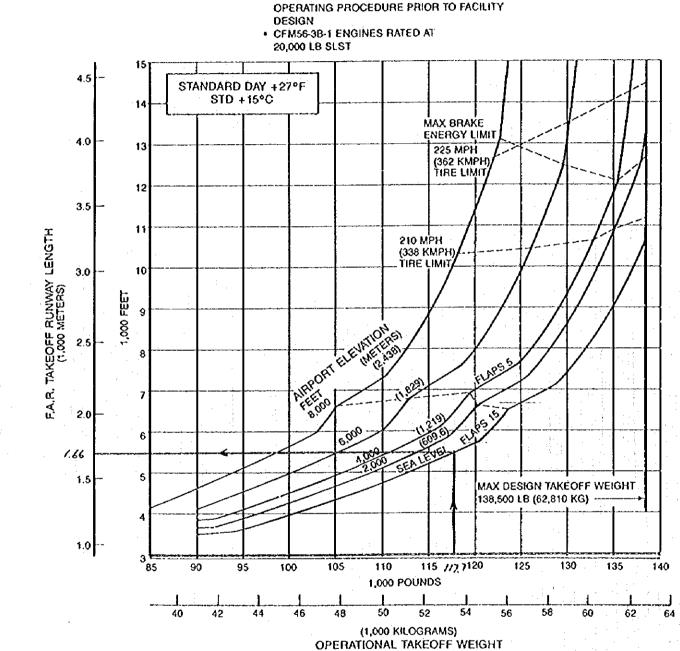
Approximate Takcoff Weight for Manila at Maximum Payload (Source : PAL)

B737-300 :52.7 ton (116,200lbs) A320-200 :66.3 ton (146,200lbs) A300-B4 :136.1 ton (300,000lbs)

Typical Takcoff Runway Length at Sea Level and 30°C

B737-300 : 1,610m A320-200 : 1,830m A300-B4 : 1,640m

Airport Elevation : 20m (66ft) Reference Temperature : $32.2^{\circ}C$ (90.0°F) Longitudinal Slope : 0.7% $a = (1 + 0.07 \times 20 / 300) \times (1 + 0.01 \times 2.2) \times (1 + 0.1 \times 0.7) = 1.099$ B737-300 : 1,610 x 1.099 = 1,770m A320-200 : 1,830 x 1.099 = 2,010m A300-B4 : 1,640 x 1.099 = 1,800m



NO ENGINE AIRBLEED FOR AIR CONDITIONING
 ZERO WIND, ZERO RUNWAY GRADIENT
 CONSULT WITH USING AIRLINE FOR SPECIFIC

NOTES:

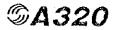
3.3.2 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS-STANDARD DAY + 27°F (STD + 15°C) MODEL 737-300 (CFM56-3B-1 ENGINES, 20,000 LB SLST)

D6-58325-2

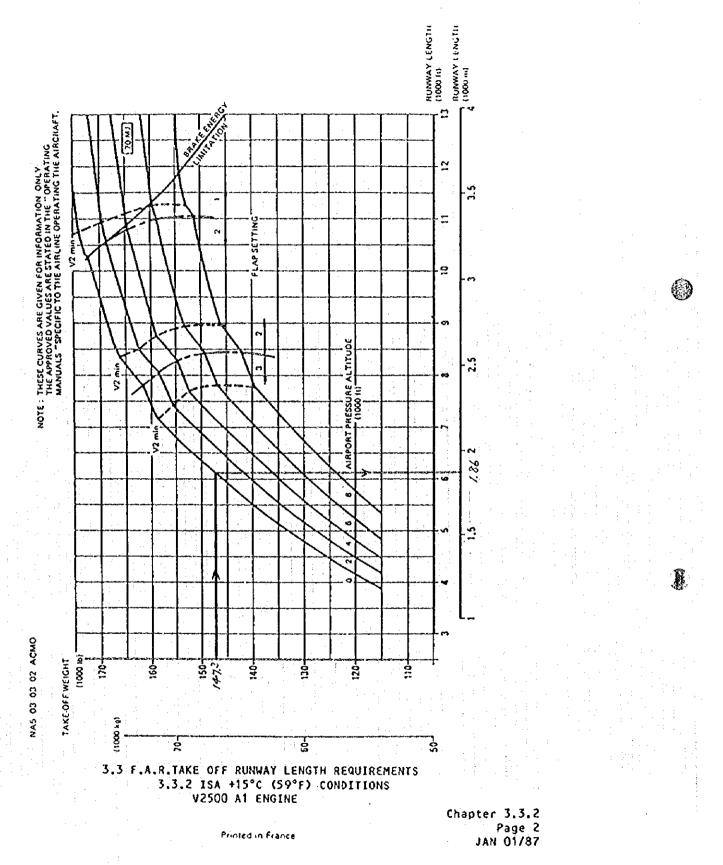
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AIRPLANE CHARACTERISTICS



S	TAYE-OFF PERFORMANCE Climb/Runway Length Limited Take-Off Neisht	8° FLAPS	CORPECTIONS: . WO ENCLUE PLECE. CORPECTIONS: . ONK: . ALOVE 1013 mb ADD 8(ZELOW 1013 mb SUB 1(Nacelle Anti-Ice: SUTTPACT 1,500 ko. Total Anti-Ice: SUTTPACT 4,000 kg. Eleeds to PACKS ON: SUTTACT 2,000 kg.		Sée :	Example No.	A500 AON . 6.2.55
And Philippine Airlines	6.2.85 TAKE-OFF 6.2.85 Climb/Fu							
						2. CORECTED RUMANY LENGTH (=)	V 000 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
And Philippine Airlines	OPERATICNS MANUAL		252 LEVEL	6,000 rr 10,000 rr 10				X 1935
	AIRCRAFT OPERAT A300				716 / 100 /			onte · 16 January 1985 Jesue : 3

Meteorological Analysis for Bacolod Airport

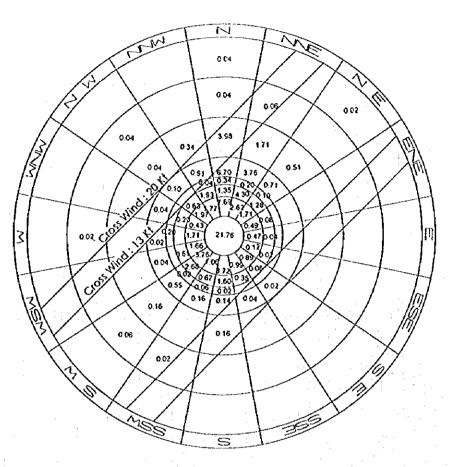


Figure A5.3.1 Wind Rose

	Ioble	A5.3.1	All Weather	Wind	Coverage
--	-------	--------	-------------	------	----------

Direction	Cross Wind (KI)	Tale Wind (Kt)	Wind Coverage (%)
RWY 04	13	5	76.26
	20	5	81.74
RWY 22	13	5	51.24
	20	5	51.65
RWY 04/22	13	0	93.38
	20	0	99.07

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PAVEMENT INVESTIGATION REPORT: BACOLOD AIRPORT

1. Runway and Taxiway

The structure of the runway and taxiway pavements is 25cm aggregate base, 25cm cement concrete slab and 10cm asphalt overlay on it. The original cement concrete pavement was completed in 1967. The overlay work was completed in 1993.

The gravel has about 30% of broken faces, but the rest is pebbles rather than crushed stones. Reflection cracks were observed along joints of the cement concrete slabs. However the number of hair cracks are not many as they damage the pavement. Stagnant water were observed due to unevenness of the pavement surface. It is also not serious as it affects aircraft operations. The quality of asphalt concrete is generally good. With adequate maintenance of cracks, by asphalt fillers, the runway can be used without major repair for the present traffic load.

The taxiway pavement is generally in the same condition as the runway pavement. The elevation of the northern taxiway near the apron is low and often have stagnant water from rain. Filling of cracks with asphalt and an overlay for grade correction are recommended.

2. Apron

The structure of the apron pavement is 25cm aggregate base and 25cm cement concrete slab on it. The standard size of the slabs is 6.0m by 3.0m. The apron was constructed in 1967 and expanded in 1981.

The quality of the cement concrete slabs have been deteriorating with many hair cracks, corner cracking and scaling. More than 10% of the slabs have cracks dividing a slab into two 3m by 3m pieces, which might reach to the bottom of the slabs. Many other slabs are about to have corner missing and scaling, which together with deteriorated joint scalant will accelerate the destruction of the cement concrete pavement by infiltration of rain water. Some of major cracks were scaled with asphalt joint scalant. However since the fillers are deteriorated, no effective prevention of rain water penetration can be expected.

In addition, a large area (approx. 50m by 40m) on the northern part of the apron has stagnant water lasting for a few days after heavy rain fall. This is caused by lower elevation of pavement surface than the surrounding pavements. Mal-setting of base course at the time of construction may be the cause since no irregular cracks and destroyed joints to be caused by uneven settlement of concrete slabs were observed.

As a temporary countermeasure, an asphalt overlay with a minimum thickness of 10cm (6cm binder course and 4cm surface course) is required after sticking a 50cm wide reflection prevention sheet along

the joint. Oil proof coating should be applied for aircraft parking positions. The northern part of the apron would require a thicker asphalt overlay to correct grading.

3. Vehicle Parking Area

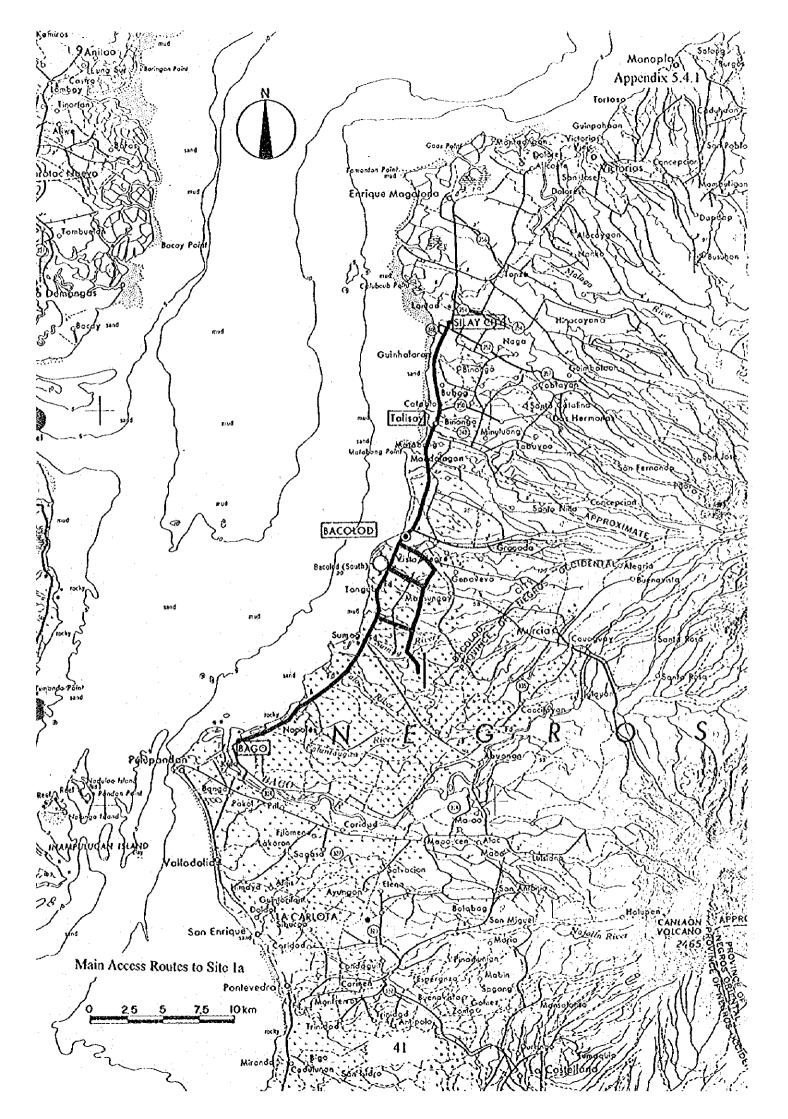
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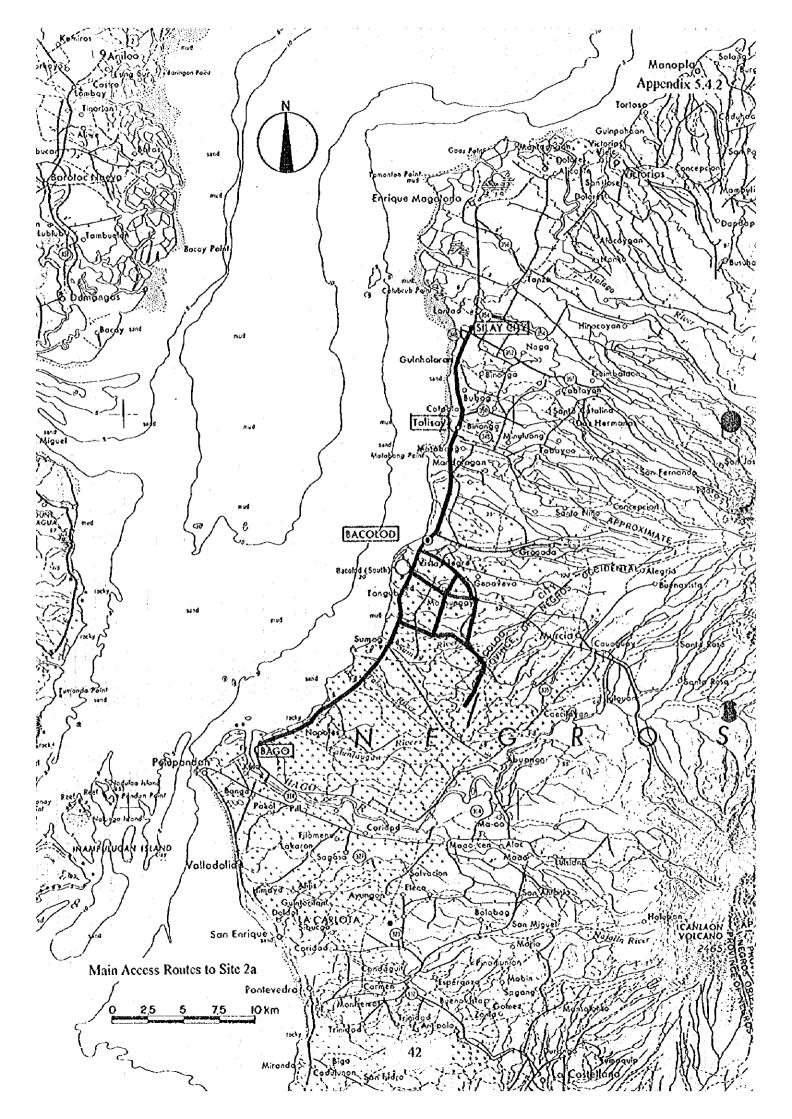
Asphalt concrete pavement constructed in 1992 is in good condition and can be used with adequate maintenance. Around the eastern edge of the vehicle parking area, grass penetrate upon the asphalt concrete. It is necessary to construct a base course to avoid growing of grass. Therefore, when the damage become serious, this part may require re-pavement after demolishing the existing one.

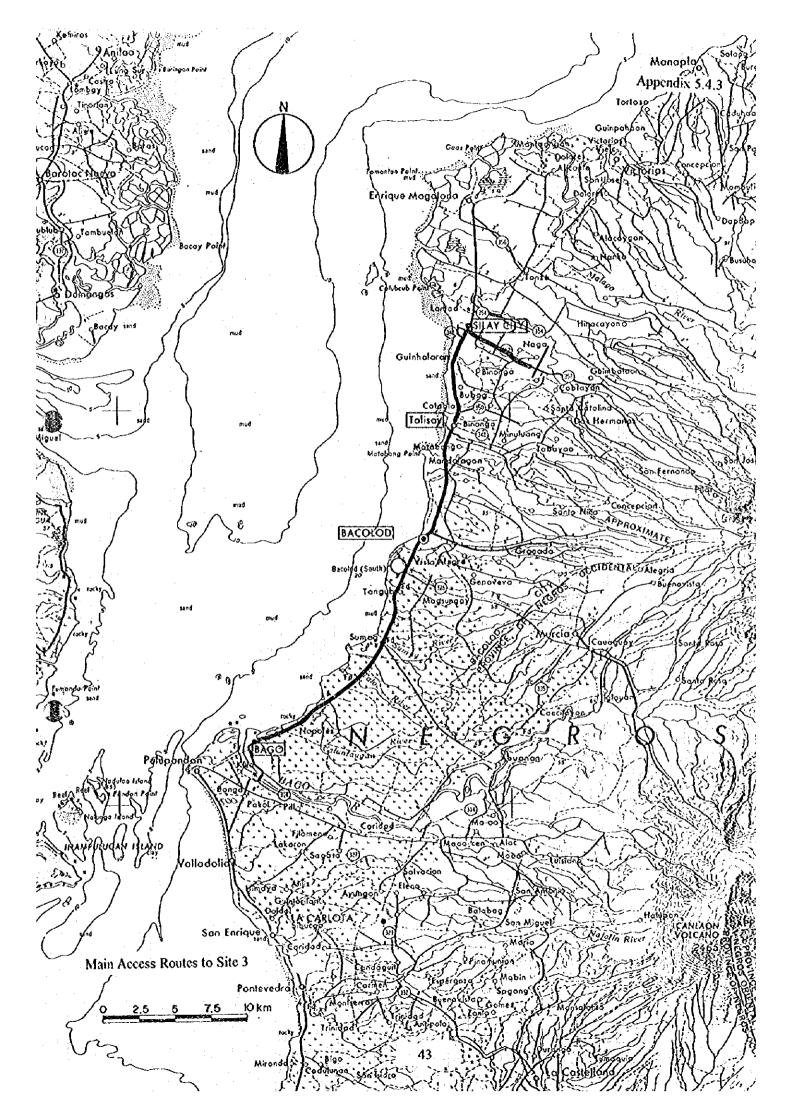
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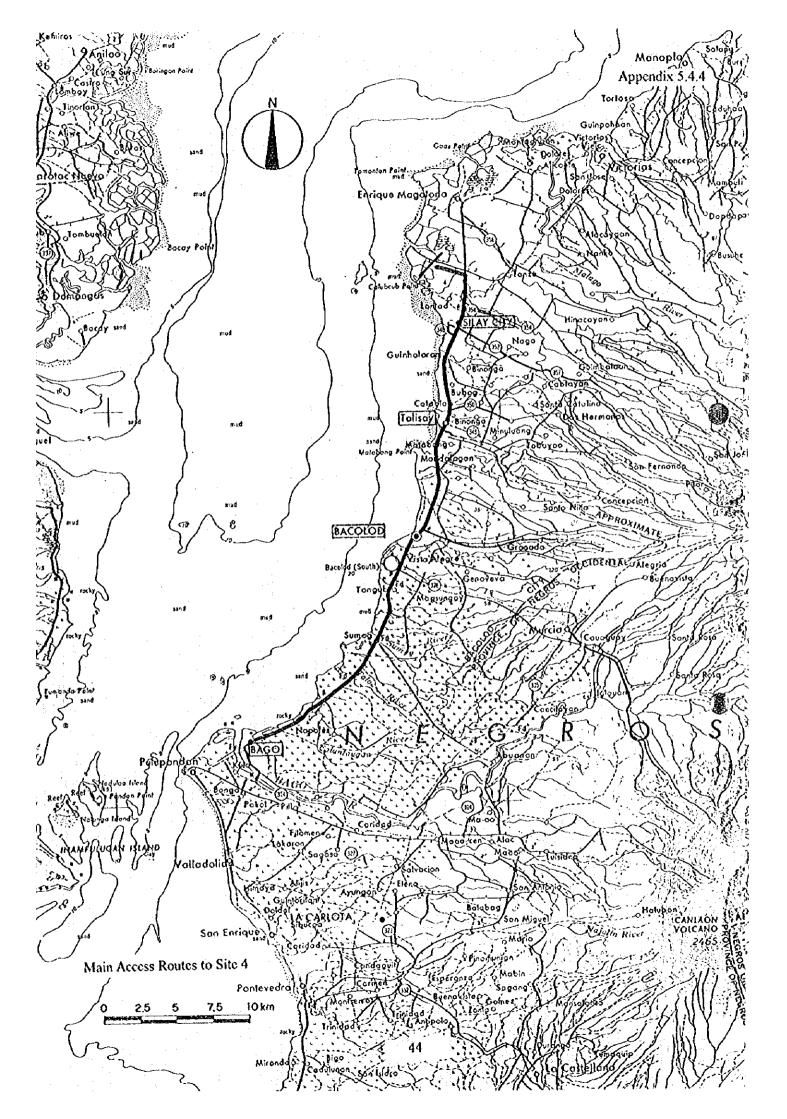
Passenger Terminal Space Analysis for Bacolod Airport

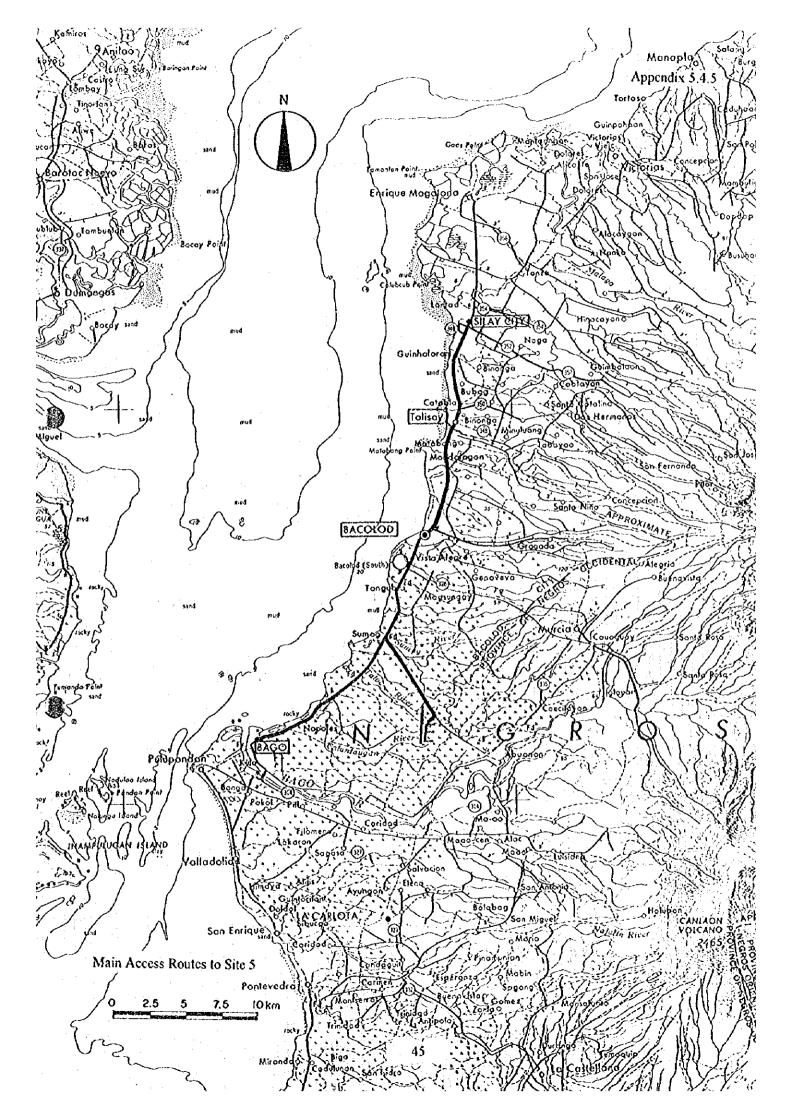
		Current	Remorks
		Data	
o: Number of peak hour originating passengers		140	
b: Number of peak hour landside transfer passengers		0	
c: Number of peak hour departing passengers		140	
d: Number of peak hour terminating passengers		140	
g: Time of first passenger at gate lounge (mins, before \$	510)	50	
m: Maximum number of seats on largest aircraft handk	ed al gate in question	141	
o: Number of visitors - Originating passengers		1.7	
o: Number of visitors - Terminating possengers		1.7	
p: Proportion of passengers using car/taxi - Originating	passengers	90%	
p: Proportion of passengers using cor/taxi - Terminating	passengers	90%	
q: Proportion of passengers arriving by wide-body airc	raft during peak hour	0%	
: Proportion of possengers arriving by norrow-body air	craft during peak hour	100%	
: Maximum number of seats on lorgest aircraft handled	d ot o'rport	141	
1: Average processing time per passenger at check-in	desk (mins.)	2.0	
		Required	
L Departure Curb	t = (0.095 a p) 1.1 =	13	m
2. Departure Concourse	A = 0.75 { a (1 + o) + b} =	284	sq.m
3. Security Check (Check-in Baggage)	N = (a + b) / 300 =	0.5	
1. Check-in Queuing Area	A = [0.25 { a + b}] 1.1 =	39	sq.m
5. Check-in Counters	N = [(a + b) 11 / 60] 1.1 =	5.1	
5. Security Check (Gate Lounge)	N = 0.2 m / (g - 5) =		
7. Gale Lounge	A = 1.375 a x 0.5 x 1.3 =	125	sq.m
3. Baggage Claim Area	A = (0.9 d) 1.1 =	139	s q .m
P. Number of Baggage Claim Devices - Narrow Body	N = dt / 300 = 0	0.5	
0. Arrival Concourse Waiting Area	A = {0.375 (d + b + 2 d o)} 1.1 =	254	sqim
11. Árrival Curb	L = (0.095 dp) 1.1 =	13	m

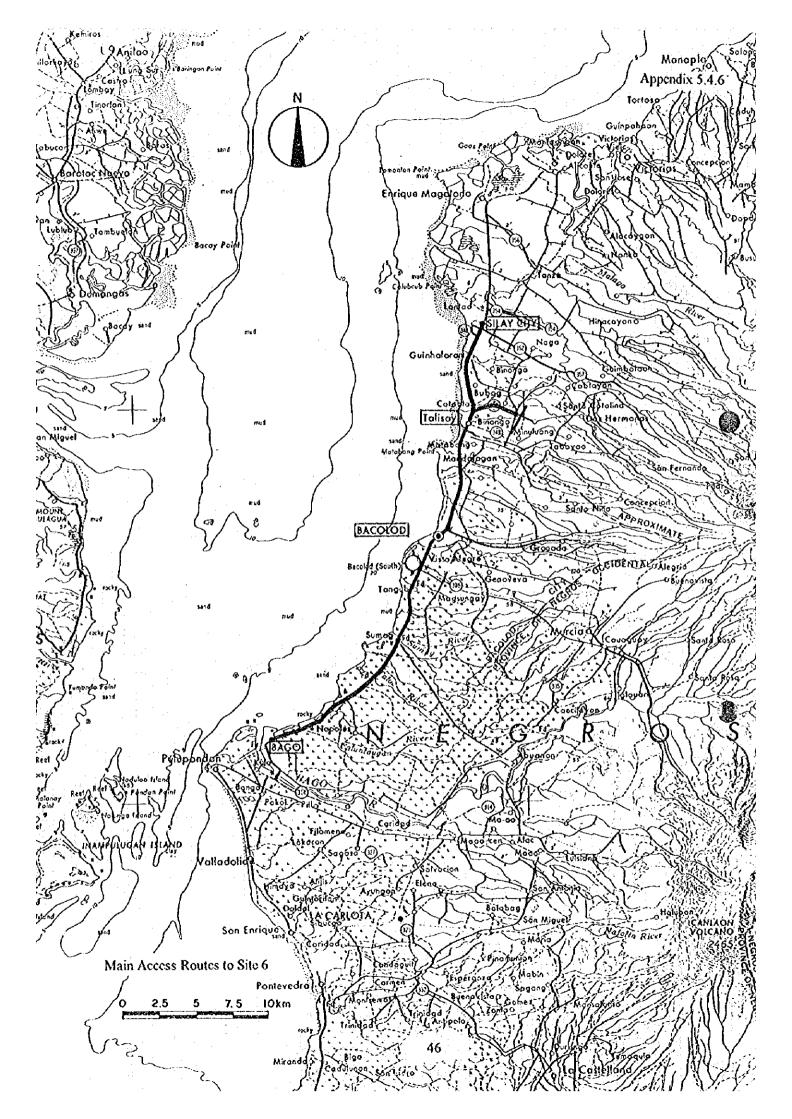












REQUIRED ASPHALT OVERLAY THICKNESS FOR BACOLOD AIRPORT

1) Existing Pavement (PCN41R/C/W/U)

Asphalt Overlay:10cmPCC Slab:25cmBase Course:25cm

2) ACN of Typical Aircraft Operating at the Airport

B737-300 at Maximum Ramp Weight (56,470kg) : ACN = 37A320 at Maximum Ramp Weight (68,400kg) : ACN = 44A300-B4 at 140,000kg : ACN = (61 - 27) / (157,000 - 87,826) x (140,000 - 87,826) + 27 = 53

3) Overlay Required for A300 and A320 Operations

Assumed CBR = 6%

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Assumed K on Top of Subgrade = 40MN/m³ Assumed Concrete Flexural Strength: 650 psi Assumed Equivalent Annual Departure: 3,000 K on Top of Base Course (Figure-1): 240pci Thickness of New Rigid Pavement

for A300 (Figure-2): $h_3 = 13$ inches = 32.5 cm

for A320 (Figure-3): $h_3 = 14$ inches = 35 cm

therefore, required thickness is 35cm

F-Factor (Figure-4): 0.96

Condition Factor of Existing Rigid Pavement: $C_b = 0.9$

Thickness of Asphalt Overlay: $t = 2.5 x (F x h_d - C_b x h_c) = 2.5 x (0.96 x 35 - 0.9 x 25) = 28 cm$

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Effective Thickness of Existing Asphalt Overlay: 9 cm

Required Overlay Thickness: 28 - 9 = 19 cm

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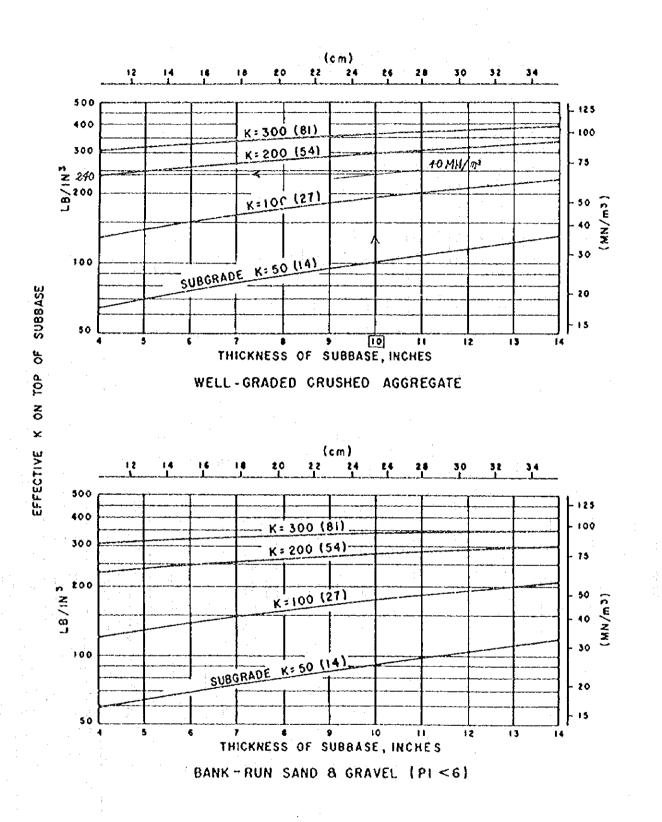
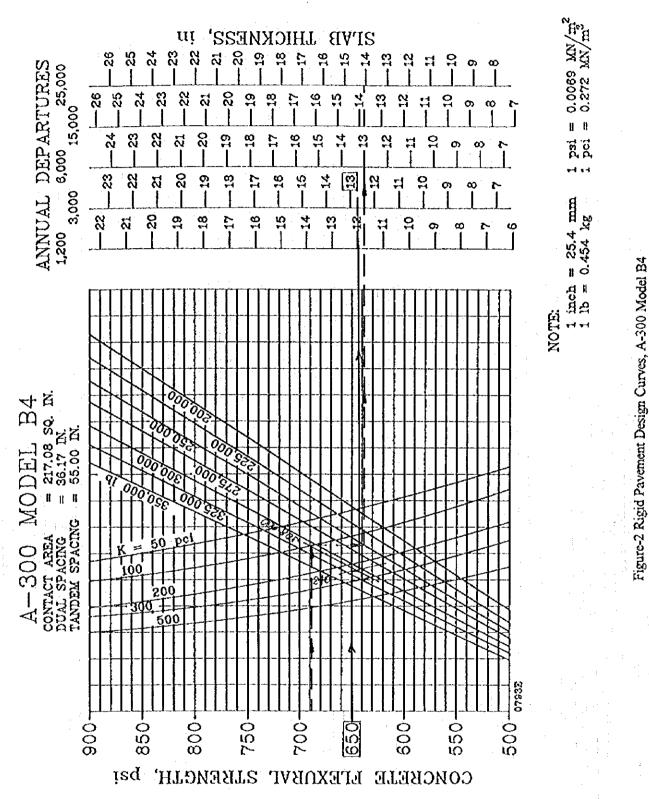


Figure-1 Effect of Subbase on Modulus of Subgrade Reaction

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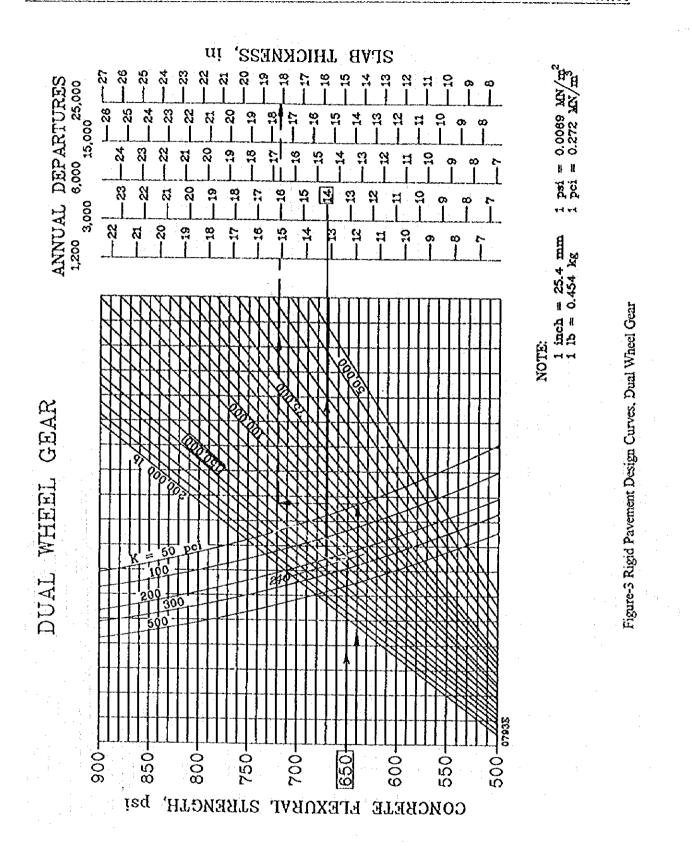


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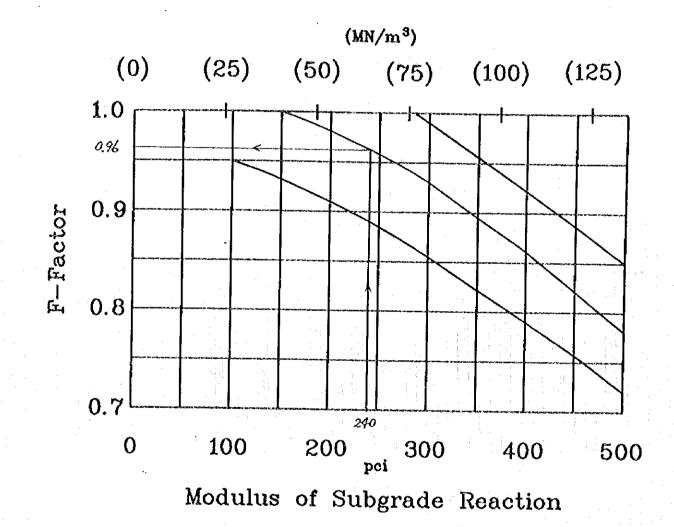


Figure-4 Graph of "F" Factor vs. Modulus of Subgrade Reaction for Different Traffic Levels

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Appendix 5.5.2 Economic Benefits by the Project for Bacolod Airport

[Airs	Passenger Tr	affic	·····		Time Savin	vis Benefit			·		<u></u>	Touris	m Earnings B	lorefi			·			nefit from Car			Total
	Passengers			Incrementa)	Time	Cost of	Cost of	Time Savions	Time Savinos	Incremental	Incremental	Incremental		Tourism	Tourism	Tourism	Tourism	Tourism	Cargo	Cargo	Incremental	Cargo	Cargo	Benefit
Year	in	in	Passengers	Business	Value of	Travel	Travel	Benefit	Benefit	Tourist	Tourists	Foreign	Domestic	Earnings	Earnings	Earnings	Earnings	Earnings	in	in	Cargo	Benefit	Benefit	by
	WP	WOP	in	Passengers	Business	by Bus	by Air	per	by the	Passengers		Tourist	Tourist	Benefit per	Benefit per	Benefit from	Benefit from	Benefit	WP	WOP	in WP	per ton of	by the	the
1	Case	Case	WP	in	Passengers	Transport	Transport	Business	Project	in	WP	ìn	in	Foreign	Domestic	Foreign	Domestic	by the	Case	Case	Case	Cargo	Project	Project
			Case	WP				Passenger	•	WP	Case	WP	WP	Tourist	Tourist	Tourist	Tourist	Project						
				Case	(PHP/hour)	(PHP)	(PHP)	(PHP)	(PHP '000)	Case		Case	Case	(PHP)	(PHP)	(PHP '000)	(PHP '000)	(PHP '000)	(ton)	(ton)	{ton}	(PHP.ion)	(PHP '000)	(PHP '000)
						(6)≠(5)×17.	(7)=(5)×2.4									- 3			·			<i>_</i>		
	(1)	(2)	(3)=(1)-(2)	(4)≖(3)≽56. 0%	(5)	3 hours +720	hours +1,398	(8)	(9)=(4)×(8)	(10)=(3)X12 .3%	(11)=(10)/2	(12)≆(11)x1 4.1%	(13)=(11)x8 5.9%	(14)	(15)	(16)=(12)×(14)	(17)±(13)x(15)	(18)=(16)+(17)	(19)	(20)	(21)=(19)- (20)	(22)	(23)=(21)x(22)	(24)=(9)+(1 8)+(23)
1995	371,955	371,955	0	0					0	0	G	0	0	2,700	800	0	0	0	7,531	7,531	0		0	0
1996	426,000	426,000	0	0	50	1,585	1,518		0	0	0	0	0	2,865	849	· 0	0	c	8,300	8,300	. 0		0	0
1997	426,000	426,000	0	0	53	1,638	1,525		0	0	0	0	0	3,039	901	0	0	0	8,300	8,300	0		0	0
1998	426,000	426,000	0	0	56	1,694	1,533		0	Ö	0	0	0	3,225	956	· 0	0	0	8,300	8,300	0		0	0
1999	426,000	426,000	0	0	60	1,753	1,541		Ò	Ó	. 0	0	0	3,422	1,014	0	0	0	8,300	8,300	0		0	0
2000	426,000	426,000	0	0	63	1,816	1,550		0	. 0	C	0	0	3,630	1,076	0	0	0	8,300	8,300,	0		0	0
2001	426,000	426,000	0	0	67	1,881	1,559		0	0	C	0	0	3,844	1,139	0	0	0	8,300	8,300	0		0	0
2002	833,000	426,000	407,000	227,920	71	1,949	1,569	381	86,790	50,061	25,031	3,529	21,501	4,071	1,206	14,369	25,937	40,306	13,500	8,300	5,200	4,575	23,790	150,886
2003	886,000	426,000	460,000	257,600	75	2,022	1,579	443	114,183	56,580	28,290	3,969	24,301	4,312	1,277	17,198	31,044	48,242	14,200	8,300	5,900	4,575	26,993	189,418
2004	943,000	426,000	517,000	289,520	80	2,099	1,589	509	147,485	63,591	31,796	4,483	27,312	4,566	1,353	20,470	36,950	57,419	14,900	8,300	6,600	4,575	30,195	235,099
2005	1,003,000	426,000	577,000	323,120	84	2,180	1,601	579	187,238	70,971	35,486	5,003	30,482	4,835	1,433	24,193	43,671	67,864	15,600	8,300	7,300	4,575	33,398	288,500
2006	1,045,000	426,000	619,000	346,640	89		1,611	645	223,534	76,137	38,069	5,368	32,701	5,087	1,507	27,304	49,286	76,589	16,200	8,300	7,900	4,575	36,143	336,266
2007	1,088,000	426,000	662,000	370,720		2,336	1,622	714	264,563	81,426	40,713	5,741	34,972	5,351	1,586	30,719	55,450	86,169	16,900	8,300	8,600	4,575	39,345	390,077
2008	1,133,000	426,000	707,000	395,920	.98	2,420	1,634	786	311,198	86,961	43,481	6,131	37,350	5,629	1,668	34,513	62,299	96,812	17,600	8,300	9,300	4,575	42,548	450,558
2009	1,180,000	426,000	754,000	422,240		2,508	1,646	862	364,031	92,742	46,371	6,538	39,833	5,922	1,755	38,721	69,896	108,617	18 300	8,300	10,000	4,575	45,750	518,397
2010	1,229,000	426,000	803,000	449,680	109	2,601	1,659	942	423,701	98,769	49,335	6,963	42,421	6,230	1,846	43,382	78,309	121,690	19,000	8,300	10,700	4,575	48,953	594,344
2011	1,268,000	426,000	842,000	471,520	113	2,682	1,670	1,012	477,130	103,566	51,783	7,301	44,482	6,498	1,925	47,445	65,643	133,088	19,600	8,300	11,300	4,575	51,698	661,915
2012	1,308,000	426,000	882,000	493,920	118	2,766	1,682	1,085	535,688	108,486	54,243	7,648	46,595	6,777	2,008	51,836	93,569	145,405	20,300	8,300	12,000	4,575	54,900	735,993
2013	1,349,000	426,000	923,000	516,880	123	2,654	1,694	1,160	599,764	113,529	56,765	8,004	48,761	7,069	2,094	56,578	102,129	158,707	21,000	8,300	12,700	4,575 4,575	58,103 61,305	816,573 905,016
2014	1,392,000	426,000	966,000	540,960 565,600	129 134	2,946 3,042	1,707 1,720	1,239 1,322	670,468 747,639	118,818 124,230	59,409	8,377 8,758	51,032 53,357	7,373 7,690	2,185 2,278	61,760 67,350	111,483 121,573	173,243 188,923	21,700, 22,400	8,300 8,300	13,400 14,100	4,575	64 503	905,016
2015	1,436,000	426,000	1,010,000	565,600	134	3,133	1,733	1,322	791,753	124,230	62,115 62,115	8,758	53,357	7,990	2,367	69,976	126,314	196,291	22,400	8,300	14,100	4,575	64,503	1.052.551
2017	1,436,000	426,000	1,010,000	565,600	145	-	1,746	1,400	837,587	124,230	62,115	8,758	53,357	8,301		72,706	131,240	203,946	22,400	8,300	14,100	4,575	64,508	1,106,040
2018	1,436,000	426,000	1,010,000	565,600	145	3,324	1,759	1,565	885,208	124,230	62,115	8,758	53,357	8,625	2,556	75,541	136,359	211,900	22,400	8,300	14,100	4,575	64,508	1,161,616
2019	1,436,000	426,000	1,010,000	565,600	156	3,426	1,733	1,653	934,687	124,230	62,115	8,758	53,357	8,962	2,655	78,487	141,677	220,164	22,400	8,300	14,100	4,575	64,508	1,219,359
2020	1,436,000	426,000	1,010,000	565,600	163	3,531	1,788	1,743	986,096	124,230	62,115	8,758	53,357	9,311	2,759	81,548	147,202	228,750	22,400	8,300	14,100	4,575	64,508	1 279 353
2021	1,436,000	426,000	1,010,000	565,600	168	3,630	1,802	1,828	1,034,031	124,230	62,115	8,758	53,357	9,637	2,855	84,402	152,354	236,757	22,400	8,300	14,100	4,575	64,508	1,335,295
2022	1,436,000	426,000	1,010,000	565,600	174	3,732	1,816	1,916	1,083,643	124,230	62,115	8,758	53,357	9,974	2,955	87,356	157,687	245,043	22,400	8,300	14,100	4,575	64,508	1,393,194
2023	1,436,000	426,000	1,010,000	565,600	180	3,837	1,830	2,007	1,134,993	124,230	62,115	8,759	53,357	10,323	3,059	90,414	163,206	253,620	22 400	8,300	14,100	4,575	64,508	1,453,120
2024	1,436,000	426,000	1,010,000	565,600	186	3,946	1,846	2,101	1,188,139	124,230	62,115	8,758	53,357	10,685	3,166		168,918	262,496	22 400	8,300	14,100	4,575	64 503	1,515,143
2025	1,436,000	426,000	1,010,000	565,600	193		1,861	2,198	1,243,146	124,230	62,115	8,758	53,357	11,059	3,277	96,854	174 830	271,684	22,400	8,300	14,100	4,575	64,508	1,579,337
2026		426,000	1,010,000	565,600	200		1,877	2,299	1,300,077	124,230	62,115	8,758	53,357	11,446	3 391	100,243	180,949	281,193	22,400	8,300	14,100	4,575	64,508	1,645,777

Notes: Column (5):

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Average time value of business passengers in 1996 are estimated to be PHP50 per hour.

Minimum income for choosing air transport over surface transport is estimated to be PHP45, PHP40 and PHP61 respectively for Bacolod-Manila, Iloilo-Manila and Tacloban-Manila. PHP50 is determined as average of those values. This value is assumed to increase at the same rate as the projected GDP per capita annual growth rates, i.e., 6.1% (1996-2000), 5.9% (2000-2005), 5.2% (2005-2010), 4.3% (2010-2015), 3.9% (2015-2020) and 3.5% thereafter. Travel time and passenger fare by sea and air are estimated as weighted average of Manila and Cebu routes using the number of passengers in 2005 as a weight, 82.5% for Manila and 17.5% for Cebu. Travel time of Bacolod-Manila is 2.5 hours by air and 19.0 hours by boat. That of Bacolod-Cebu is 2.0 hours by air and 9.0 hours by boat. Those include waiting time of 1.5 hours for air and 1.0 hour for boat. Travel fare of Bacolod-Manila is PHP1,535 by air and PHP752 by boat. That of Bacolod-Cebu is PHP752 by air and 360 by boat.

Columns (14) and (15):

Column (22):

Columns (6) and (7):

Tourism earnings per foreign tourist in 1995 are estimated as PHP 2,250 (daily expenditure) x 4 days (average length of stay) x 30% (rate of value added) based on the data from the Department of Tourism. Tourism earnings per domestic tourist in 1995 are estimated as PHP 2,000 (daily expenditure) x 2 days (average length of stay) x 20% (rate of value added) based on the data from the Department of Tourism. Those values are assumed to increase at the same rate as GDP per capita growth rate.

Cargo airfare is estimated based on the present airfare on each routes weighted by the projected number of passengers in 2005. Cargo airfare per one kilogram of air cargo from Bacolod is PHP 10.05 for Manila and PHP 4.92 for Cebu. Cargo benefit per unit weight of cargo is estimated as 50% of the cargo airfare.

Columns (4), (10), (12) and (13)

This is based on the consideration that consumers' surplus per unit weight of cargo is 50% of the cargo airfare when a straight line demand curve with a price axis intercept (demand=0) being the twice the airfare is assumed. Percentage of business passengers, lourist passengers and their breakdown into foreign and domestic passengers is based on the air passenger interview survey conducted by the Study Team. See Appendix A for details.

Appendix 5.5.3 Incremental Revenues by the Project for Bacolod Airport

			Landing Fee	-			Ope	rational Cha	rge		Aircra	ft Parking Ch	arge	L		iger Service (Terminal So		
ear	Ŵ	P	W	OP C	Incremental	Ŵ	ρ	. Wo	OP	Incrementat	WP	WOP	incremental	N N		W(Incremental	V			<u>OP</u>	lucremer
	Total Weigh	Total Fee	ctal Weigh	Total Fee	Revenue	Aircraft	Total Fee	Aircraft	Total Fee	Revenue						Departing	Total Fee		Rent Space		Rent Space		Revenu
	(ton)	(1000 PHP)	(ton)	(000 FHP)	(000 PHP)	Landings	(000 PHP)	Landings	(000 PHP)	(000 PHP)	(000 PHP)	(000 PHP)	(000 PHP)	Passengers	(000 PHP)	Passengers	(000 PHP)	(000 PHP)	<u>(sq m)</u>	(000 PHP)	<u>(sg_m)</u>	(000 PHP)	
	(1)	(2)	(3)	(4)	(5)=(2)-(4)	(6)	(7)	(8)	(9)	(10)=(7)-(9)	(15)	(12)	(13)=(†1)- (12)	(14)	(15)	(16)	(17)	(\$8)=(15)- (\$7)	(19)	(20)	(21)	(22)	(23)=(26 (22)
995	128,555	3,085	128,555	3,085	0	1,585	951	1,585	951	0	123	123	0	185,978	0	165,978	0	0	0	0	0	0	
996	150,655	3,621	150,855	3,621	0	1,780	1,068	1,780	1,068	0	145	145	0	213,000	0	213,000	0	0	0	0	0		1
997	150,655	3,621	150,855	3,621 3,621	0	1,995	1,197	1,995 1,995	1,197	0	145	145	0	213,000	0	213,000	0	0	C	0	0	0	
998	150,855	3,621	150,855	3,621	0	1,995	1,197	1,995	1,197	0	145	145	0	213,000	0	213,000	0	0	0	0	0	0	
999	150,855	3,621	150,855	3,621	i o	1,995	1,197	1,995	1,197		145	145	0	213,000	0	213,000	0	0	0	0	0	0	1
000	150,855	3,621	150.855	3,621	0	1,995	1,197	1,995	1,197	0	145	145	0	213,000	0	213,000	0	0	0	0	0	0	
001	150,855	3,621	150,855	3,621	. 0	1,995	1,197	1,995	1,197	0	145	145	0	213,000	0	213,000	0	0	0	0	0	0	
002	323,200	62,054	150,855	3,621	58,434	3.045	14,616	1,995	1,197	13,419	2,482	145	2,337 2,515	416,500	33,320	213,000	.0	33,320	1,260	6,048	0	0	
003	346,345	66,498	150,855	3.621	62,878	3,195	15,336	1,995	1,197	14,139	2,660	145	2,515	443,000	35,440	213,000	0	35,440	1,260	6,048	0	0	
004	371,140	71,259	150,855	3 621	67,638	3,355	16 104	1,995	1,197	14 907	2,850	145	2,706		37,720	213,000	0	37,720	1,260	6,048	0	0	e e
005	398,410	76,495	150,855	3.621	72 874	3,195 3,355 3,530	16,944	1,995	1,197	15,747	3,060	.145	2,915	501,500	40,120	213,000	0	40,120	1,260	6,048	0	0	·
006	416,025	79,877	150,855	3.621 3.621 3.621 3.621 3.621 3.621	76,256	3,645	17,496	1,995 1,995	1,197	16,299	3,195	145	3,050	522,500	41,800	213,000	0	41,800	1,660	7,968	0	0	
007	435,580	83,631	150,655	3,621	80,011	3,765	18,072	1,995	1,197	16,875]	3,345	.145	3,200	544,000	43,520	213,000	0	43,520	1,660	7,968	0		
008	455,670	87,489	150,855	3,621	83,868	3,890 4,020	18,672	1,995	1,197	17,475	3,500	145	3,355	565,500	45,320	213,000	- 0	45,320	1,660	7,968	. 0		
009	476,050	91,402	150,855	3,621	87,781	4,020	19,296	1,995	1,197	18,099	3,656	145	3,511	590,000	47,200	213,000	0	47,200	1,660	7,968	0] 0	
010	498,325	95,678	150,855	<u>3,621</u> 3,621 3,621	92,058	4,155	19,944	1,995	1,197	18,747	<u>3,827</u> 3,958	145	3,682	614,500	49,160	213,000	0	49,160	<u> </u>	7,968	0	ļ., <u>ç</u>	
011	515,405	98,958	150,855	3,621	95,337	4,265	20,472	1,995	1,197	19,275	3,958	145	3,813	634,000	50,720	213,000	. 0	50,720	1,660	7,968	0	.0	
012	532,775	102,293	150,855	3,621	98,672	4,380	21,024	1,995	1,197	19,827	4,092	145	3,947	654,000	52,320	213,000	0	52,320	1,660	7,968	0	0	
013	551,795	105,945	150,855	3,621	102 324	4,500	21,600	1,995	1,197	20,403	4,238	145	4,093		53,960	213,000	· 0	53,960	1,660	7,968	0	0	
014	569,990	109,438	150,855	3 621	105,818	4,625	22,200	1,995	1,197	21,003	4,378	145	4,233	695,000	55,680	213,000	0	55,680	1,660	7,968	0	0	
015	608,235	116,781	150,855	3,621	113 161	4,445	21,336	1, <u>996</u> 1,995	1,197	20,139	4,671	145	4,526	718,000	57,440	213,000	0	57,440	1,660	7,968	0	0	
016	608,235	116,781	150,855	<u>3,621</u> 3,621	113,161	4,445	21,336	1,995	1,197	20,139	4,671	145	4,526	718,000	57,440	213,000	0	57,440	1,660	7,968	0	0	
017	608,235	116,781	150,855	3 621	113,161	4,445	21,336	1,995	1,197	20,139	4,671	145	4,526	718,000	57,440	213,000	0	57,440	1,660	7,968	0	0	
018	608,235	116,781	150,855	3,621	113 161	4,445	21,336	1,995	1,197	20,139	4 67 1	145	4,526	718,000	57,440	213,000	0	57,440	1,660	7,968	0] 0	
019	608,235	116,781	150,855	3,621	113 161	4,445	21,336	1,995	1,197	20,139	4,671	145	4,526	718,000	57,440	213,000	0	57,440	1,660	7,968	0	0	
020	608,235	115,781	150,855	3,621	113 161	4,445	21,336	1,995	1,197	20,139	4,671	145	4,526	718,000	57,440	213,000	0	57,440	<u>1,660</u> 1,660	7,968	0	<u> </u>	
021	608,235	116,781	150,855	3,621	113,161	4,445	21,336	1,995 1,995	1,197	20,139	4,671	145	4,526	718,000	57,440	213,000	0	57,440	1,660	7,968	0	0	1
022	608,235	116,781	150,855	3,621	113 161	4,445	21,336	1,995	1,197	20,139	4,671	145	4,526	718,000	57,440		0	57,440		7,968	0	0	
023	608,235	116,781	150,855	3,621		4,445	21,336	1,995	1,197	20,139	4,671	- 145	4,526	718,000	57,440	213,000	0	57,440	1,660	7,968	0	0.	2
024	608,235	116,781	150,855	3,621			21,336	1,995	1,197	20,139	4,671	145	4,526	718,000	57,440	213,000	0	57,440	1,660	7,968	0	0	
025	608,235	116,781	150,855	3,621			21,336	1,995	1,197	20,139	4,671	145	4,526	718,000	57,440	213,000	0	57,440	1,660	7,968	0	ļ0	·
026	608,235	116,781	150,655	3.621			21,336	1,995	1,197	20,139	4,671	145	4,526	718,000	57,440	213,000	0	57,440	1,660	7,968	0		<u>l</u>

Year 1995 1996 1997 1998 1959 2000 2001 2002 2003 2004 2006 2007 2006	Rent Space	YP Total Fee (000 PHP) (25) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Rent Space	<u>ÖP</u>	Incremental Revenue (000 PHP) (28)=(25)- (27) 0	WP	ssion Privilee WOP (000 PHP) (30)	Incremental Revenue (1000 PHP) (31)=(29)-	<u>(KL)</u>			OP Total Fee (000 PHP)		9WP (1000 PHP)		Incremental Revenue (1000 PHP)		Services (1000 PHP)	Revenue (000 PHP)	Incremental Revenue (000 PHP)
1935 1996 1997 1998 1989 2001 2001 2003 2004 2006 2006 2007	Rent Space [sq_m]	Total Fee (000 PHP)	Rent Space (sq. m)	Total Fee (000 PHP)	Revenue (000 PHP) (28)=(25)-	(000 PHP)	(000 PHP)	Revenue (000 PHP) (31)=(29)-	<u>(KL)</u>					(000 PHP)	(000 PHP)		(000 919)		(000 FHP)	(000 FHP)
1996 1997 1998 2000 2001 2002 2003 2004 2005 2006 2007	<u>(sq.m)</u>	(000 PHP)	<u>(sq. m)</u>	(000 PHP)	(28)=(25)			(31)=(29)-		(000 FHP)	(XL)	(000 PHP)	<u>(9149-000)</u>	(9H9 0001	(000 PHP)	(900 PHP)				
1996 1997 1998 2000 2001 2002 2003 2004 2005 2006 2007			·		(28)=(25)-	(29)	(30)										1. L	t . I	' . I	1. k
1996 1997 1998 2000 2001 2002 2003 2004 2005 2006 2007	(24) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(25) 0 0 0 0 0	(26) 0 0	(27)		(29)	(30)						1001 (333)			(20)-1271	1/202-182-1402	17412-1221-122		(43)=(40)+(4
1996 1997 1998 2000 2001 2002 2003 2004 2005 2006 2007		0 0 0 0 0 0	0	0	(27)	()			(32)	(33)	(34)	(35)	(36)=(33)-	(37)	(38)	(39)=(37)- (38)		(41)=(23)+(2 8)+(31)+(36)	(42)=(39)	1)+(42)
1996 1997 1998 1999 2001 2002 2003 2004 2005 2006 2006 2007	0 0 0 0 0 0 0	0 0 0 0 0	0 0 0	0	0		1	(30)		• •	• •		(35)			(00)	+[+3]+[10]	0)7(3)7(30)		175(12)
1996 1997 1998 2000 2001 2002 2003 2004 2005 2006 2007	0 0 0 0 0 0	0 0 0 0	0	ŏ		42	42	n n	0	0	0	0	0	0	0	0	0	0	. 0	0
1997 1998 1998 2000 2001 2002 2003 2004 2005 2006 2007	0 0 0 0	0 0 0	i õ		l ō	42	42	Ŏ	ŏ	ŏ	õ	- 0	· ō	0	Ó	0	o	(o	0	- 0
1998 1999 2000 2001 2002 2003 2004 2005 2006 2007		0		· 0	i č	42	42	ŏ	ŏ	Č.	Ŏ	Ō	Ó	. 0	0	0	i ol	1 0	. 0	0
1999 2000 2001 2002 2003 2004 2005 2006 2006 2007	0	ŏ		ň	ត័	- 42	42	ň	ñ	ŏ	ō	Ō	i õ	Ó	Ó	o l	· · o	0	0	· 0
2000 2001 2002 2003 2004 2005 2006 2007	0		ñ	ŏ		42	42	Ō	õ	· ō	0	0	0	0	0	× 0	0	i : o	0	: 0
2001 2002 2003 2004 2005 2006 2006 2007	ŏ	1 0	. õ	ŏ	ŏ	42	42	ē	ō	- O	. 0	l o	Ó	0	- 0	. 0	0	0	0	0
2002 2003 2004 2005 2006 2007		ŏ	ŏ	ŏ	ō	42	42	C C	Ō	0	Ō	0	Q	0	0	0	0	0	0	0
2003 2004 2005 2006 2007	1,560	4,493	ŏ	õ	4,493	4,234	42		13.357	3,206	0	O	3,206	668	0	683	107,510	17,938	688	126,136
2004 2005 2006 2007	1,550		i č	, õ	4 493	4 234	42		14,280	3,427	0	.0	3,427	688	0	683	114,972	18,160	688	133,819
2005 2006 2007	1,560			ň	4,493	4,234	42	4, 192	15,203	3,649	Ó	0	3,649	6 68	. 0	688	122,971	18,381	688	142,039
2006 2007	1,560			i õ	4,493	4,234	42	4,192	16.126	3,870	Ō	Ó	3,870	688		683	131,656	18,603	668	150,946
2007	2 240		ŏ	ŏ	6,455	5,578	42		16,728	4,015	0	0	4,015	792		792	137,406	23,970	792	162,167
	2,240		ŏ	. 0	6 451	5,578			17,330	4 159	0	0	4,159	792		792	143,606		792	168,512
	2,240			Ó	6,451	5 578			17,933	4,304	0	· 0	4,304	792	· 0	792	150,018		792	175,068
2009	2.240			Ō	6.451	5,578	42		18,535	4,448	0	0	4,448	792	0	792	156,591	24,403]	792	181,786
2010	2 240			õ	6.451	5.578	42		19,137	4,593	. 0	0	4,593	792	0	792		24,548	792	188,987
2011	2,240			Ō	6,451	5,578	42		19,885	4,772	0	0	4,772	792	Û	192			792	194,665
2012	2 240			Ō	6,451	5 578	42		20,633	4,952	0] 0	4,952	792		792	174,766		792	200,465
2013	2,240			Ó	6.451	5 578	42		21,381	5,131	0	0	5,131	792		792	180,780		792	206,658
2014	2,240			0	6,451	5,578	42	5,536	22,129	5,311	0	0	5,311	792		792			792	212,791
2015	2 240			Ó	6,451	5.578	42	5,536	22,877	5,491	0	0	5,491	792		792			792	221,503
2016	2 240			0	6,451	5,578	42	5,536	22,877	5,491	0	0	5,491	792		792			192	221,503
2017	2 240			Ó	6 451	5,578	42		22,877	5,491	.0	0	5,491	792		792			792	221,503
2018	2.240			l c	6,451	5,578	42		22,877	5,491	0	0	5,491	792		792	195,266		792	221,503
2019	2,240			l õ	6,451	5,578	42		22,877	5,491	0	0	5,491	792		792	195,266		792	221,503
2020	2,240		l õ	o o	6,451	5,578	42		22,877	5,491	0	0	5,491	792		792			792	
2021	2.240		Ō	i o	6,451	5.578	42	5,536	22,877	5,491	0	0	5,491	792		792			792	221,503
2022	2 240		l õ	o õ	6,451	5 578	42		22,877	5,491	0	1 0	5,491	792		792			792	221,503
2023	2 240		Ĩ	ŏ	6.451	5 578	42		22,877	5,491	0] 0	5,491	792		792	195,266		792	
2024				ŏ	6,451	5,578	42		22,877	5,491	i o] 0	5,491	792	0	792	195,266		792	221,503
2025	1 2 240			i õ	6,451	5,578	42		22.877	5,491	l	i. A	5,491	792	1 A	792	195,266	25,445	792	221,503
2026	2,240				л 0.40 L		. 42		22.0/1	J 431		1 V		792	v. v	792			792	

 Notes:
 The following prices of airport charges are used for calculation based on the present conditions.
 Security
 Security

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g) Concession Fee;
h) Aviation Fuel Surcharge;
i) Utility Charges;

- PHP 30 per so m per month. Estimated as 70% of the space rent revenues of the passenger terminal building based on the past financial records. PHP 30 per kilo liter of aviation fuel sales. Estimated as 110% of actual anticipated cost.

Appendix 6.3.1

Meteorological Analysis for Iloilo Airport

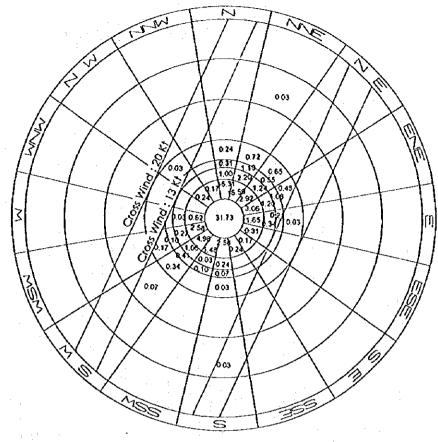


Figure A6.3.1 Wind Rose

able A6.3.1	All	Weather	Wind	Coverage

Direction	Cross Wind (KI)	Tale Wind (Kt)	Wind Coverage (%)
RWY 02	13	5	86.32
	20	5	86.62
RWY 20	13	5	52.17
5-1	20	5	52.32
RWY 02/20	13	0	99.61
•	20	0	100

Table A6.3.2 Cloud Height and Visibility Matrix Visibility (m)

				· • • • • • •	ionity (riti)				·	
		-800	-1600	-2400	-3200	-4000	-4800	-5600	5600-	Total
	0-100	0	0	0	0	0	0	0	2	2
	- 200	0	0	0	0	0	0	0	0	0
	- 300	0	Ô	0	0	0	0	0	~ O	0
	- 400	0	0	0	· 0	. 0	0	0	0	· 0
	- 500	0	Û	0	• 0	0	0	0	i 0	0
-	- 600	0	0	0	0	0	0	0	0	0
b.	- 700	- 0	0	0	0	0	· 0	0	0	5 O
-	- 800	0	0	0	0	0	0	0	0	· 0
3	- 900	0	0	0	0	0	0	0	0	0
2	- 1000	0	0	0	0	0	0	0	1	1
,	- 1100	· 0	0	0	0	0	0	0	- 0	0
	- 1200	2	0	3	0	0	0	4	159	168
	- 1300	0	0	0	0	0	0	0	· 0	0
	- 1400	0	0	0	0	0	0	0	0	0
	- 1500	0	0	0	0	0	0	0	0	0
	1500 -	0	0.1	0	0	0	0	2	1,539	1,541
11	< 5/8	0	. 0	0	0	0	1	0	1,199	1,200
	Totol	2	0	3	. 0	0)	6	2,900	2,912

Table A6.3.3 Cloud Height/Visibility Coverage

	OCH (fi)	VIS (km)	Coverage
Existing Minimo	635	2.80	99.8%
			· · · · · · · · · · · · · · · · · · ·

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Cloud Height (ft)

PAVEMENT INVESTIGATION REPORT: ILOILO AIRPORT

1. Runway and Taxiway

The structure of the runway and taxiway pavements is 23cm aggregate base, 20cm cement concrete slab and 10cm asphalt overlay on it. The original cement concrete pavement was constructed in phases between the 1960s and the mid 1970s. The overlay work was completed in March 1993.

In spite of relatively new overlay, the surface of the pavements is already very rough. Asphalt mortar was lost, and gravels, which appears pebbles rather than crushed stones, are exposed to the surface. This condition was observed for the entire length of the runway. In particular, loose stones observed for the touch down zones are receiving complaint from airline companies. The defect was caused by poor mixture of asphalt concrete and poor workmanship. In addition, the asphalt overlay pavement has many reflection cracks along the joints of cement concrete slabs. The maximum width of the cracks is about 5mm. Those cracks allows infiltration of rain water and further damage asphalt concrete.

An asphalt overlay, as a temporary countermeasure, using fine grade asphalt concrete, with a minimum thickness of 5cm is recommended.

2. Apron

The structure of the apron pavement is 23cm aggregate base and 20cm cement concrete slab on it. The standard size of the slabs is 6.0m by 3.0m. The apron was constructed some 30 years ago.

The cement concrete slabs have many hair cracks, alligator cracks and corner cracking. Approximately 5% of the slabs have cracks dividing a slab into two 3m by 3m pieces, which may be caused by their high length/width ration of 2.0. Some of major cracks were sealed with asphalt joint sealant. However, this countermeasure was not effective since further opening of cracks is observed. The hair cracks, which are a normal phenomenon for the cement concrete pavement, require a careful maintenance to avoid further crack widening. Joint sealant is generally aged and hardened. The elasticity and flexibility required for fillers are have been lost. In addition, many of them have been forced out of joint grooves.

As a temporary countermeasure, an asphalt overlay with a minimum thickness of 10cm (6cm binder course and 4cm surface course) is required after sticking a 50cm wide reflection prevention sheet along the joint. Oil proof coating should be applied for aircraft parking positions.

3. Vehicle Parking Area

The similar condition to the apron pavement was observed for the pavement of the vehicle parking are pavement. There are many deep cross-section cracks. Asphalt joint sealant is deteriorated and has lost flexibility to prevent rain water from infiltration. Since the infiltration of water and repetitious traffic load

will cause a pumping phenomenon, and further damage concrete slabs, base course and subgrade, some countermeasure is required. As a temporary countermeasure, an asphalt overlay with a minimum thickness of 10cm (6cm binder course and 4cm surface course) is recommended after sticking a reflection prevention sheet along the cement concrete slab joint.

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Passenger Terminal Space Analysis for Itoilo Airport

		Current	Remarks
		Data	
p: Number of peak hour originating passengers		210	
b: Number of peak hour londside transfer possengers		0	
: Number of peak hour deporting passengers		210	
d: Number of peak hour terminating passengers		210	
g: Time of first passenger at gate lounge (mins, before :		50	
n: Maximum number of seats on largest aircraft handle	ed at gate in question	141	
b) Number of visitors - Originating passengers		2.1	
b: Number of visitors - Terminating passengers	•	2.1	
b: Proportion of passengers using car/taxi - Originating	passengers	92%	
p: Proportion of passengers using car/laxi - Terminating		92%	
a: Proportion of passengers arriving by wide-body airc	rait during peak hour	0%	
Proportion of passengers arriving by narrow-body air		100%	
: Maximum number of seats on largest aircraft handled		141	
1: Average processing time per possenger of check-in		2.0	
		Required	
. Departure Curb	L = {0.095 a p} 1.1 =	20 1	·····
Departure Concourse	$A = 0.75 [\alpha (1 + o) + b] =$	488 5	
Security Check (Check-in Baggage)	N = (a + b) / 300 =	0.7	
. Check-in Queuing Area	A = [0.25 (a + b)] 1.1 =		iq.m
Check-in Counters	N = [(a + b) 11 / 60] 1.1 =	7.7	
Security Check (Gote Lounge)	N = 0.2 m / (g - 5) =	0.6	
Gale Lounge	A = 1.375 a x 0.5 x 1.3 =	188 s	0 m
Boggage Claim Area	A = [0.9 d] 1.1 =	208 5	-
Number of Baggage Claim Devices - Narrow Body	N = dr / 300 =	0.7	Spath -
Arrival Concourse Waiting Area	A = [0.375 (d+b+2do)]]] =	450 s	am
Arrivol Curb	L = (0.095 dp) 1.1 =		n.

0

REQUIRED ASPHALT OVERLAY THICKNESS FOR ILOILO AIRPORT

1) Existing Pavement (PCN39R/B/W/U)

Asphalt Overlay:	10cm
PCC Slab:	20cm
Base Course:	23cm

(B)

2) ACN of Typical Aircraft Operating at the Airport

B737-300 at Maximum Ramp Weight (56,470kg) : ACN = 35A320 at Maximum Ramp Weight (68,400kg) : ACN = 42A300-B4 at 140ton : $ACN = (52 - 23) / (157,000 - 87,826) \times (140,000 - 87,826) + 23 = 45$

 Overlay Required for A320 Operations (The study on pavement for Bacolod Airport indicates A320 is critical rather than A300, for more details refer to Appendix 5.5.1.)

Assumed CBR = 10% Assumed K on Top of Subgrade = $80MN/m^3$ Assumed Concrete Flexural Strength: 650 psi Assumed Equivalent Annual Departure: 3,000 K on Top of Base Course: 350pci Thickness of New Rigid Pavement: $h_d = 13$ inches = 33 cm F-Factor: 0.89 Condition Factor of Existing Rigid Pavement: $C_b = 0.9$ Thickness of Asphalt Overlay: $t = 2.5 \times (F \times h_d - C_b \times h_c) = 2.5 \times (0.89 \times 33 - 0.9 \times 20) = 28 \text{ cm}$ Effective Thickness of Existing Asphalt Overlay: 9 cm Required Overlay Thickness: 28 - 9 = 19 cm

Appendix 6.4.2 Economic Benefits by the Project for Iloilo Airport

	Air	Passenger Tr	affic			Time Savir	vas Benefit						Touris	m Earnings E	lenelit	ويعقبون ومتعدد فروين				Be	niefit from Car	00		Total
	Passengers	Passengers	Incremental	Incremental	Time	Cost of	Cost of	Fime Savings	Time Savinos	Incremental	Incremental	Incremental	Incremental	Tourism	Tourism	Tourism	Tourism	Tourism	Cargo	Cargo	Incremental	Cargo	Cargo	Benefit
Year	in	_ in	Passengers	Business	Value of	Travel	Travel	Benefit	Benefit	Tourist	Tourists	Foreign	Domestic	Earnings	Earnings	Earnings	Earnings	Earnings	in	in	Cargo	Benefit	Benefit	by
	WP	WOP	in	Passengers	Business	by Bus	by Air	per	by the	Passengers	in	Tourist	Tourist	Benefit per	Benefit per	Benefit from	Benefit from	Benefit	WP	WOP	in WP	per ton of	by the	the
	Case	Case	WP	in	Passengers	Transport	Transport	Business	Project	ln	WP	in	in	Foreign	Domestic	Foreign	Domestic	by the	Case	Case	Case	Cargo	Project	Project
			Case	WP				Passenger		WP	Case	WP	WP	Tourist	Tourist	Tourist	Tourist	Project						
1				Case	(PHP/hour)	(PHP)	(PHP)	(PHP)	(PHP '000)	Case		Case	Case	(PHP)	(PHP)	(PHP '000)	(PHP '000)	(PHP '000)	(!on)	(100)	(lon)	(PHP/lon)	(PHP '000)	(PHP '000)
		*				(6)=(5)x16.	(7)=(5)×2.4			(10) (0) 1440	:					40 40	(47)-(47)-4	(1) (10)					(00) (04) 4	10.43
	(1)	(2)	(3)=(1)-(2)	(4)≠(3)×50. 5%	(5)	6 hours +694	hours +1,317	(8)	(9)=(4)×(8)	(10)=(3)X15 .5%	(11)=(10)/2	(12)=(11)×1 3.6%	(13)≠(11)×8 6.4%	(14)	(15)	(16)=(12)x(14)	(17)=(13)×(15)	(18)=(16)+(17)	(19)	(20)	(21)=(19)- (20)	(22)	(23)=(21)×(22)	(24)=(9)+(1 8)+(23)
1995	460,423	460,423	0	0					0	0	· 0	0	0	2,700	800	0	0	0	4,771	4,771	0		0	0
1996	525,000	525,000	0	0	50	1,524	1,437	87	6	0	0	0	· 0	2,865	849] 0	0	0	5,500	5,500	0		0	0
1997	525,000	525,000	0	0	53	1,575	1,444	130	0	0	0	0	́ О	3,039	901	0	0	0	5,500	5,500	0		Û	. 0
1998	525,000	525,000	0	0	56	1,628	1,452	176	0	Q	0	0	0	3,225	956	0	0	0	5,500	5,500	0		0	0
1999	525,000	525,000	0	0	60	1,685	1,460	225	0	0	0	0	0	3,422	1 014	0	0	0	5,500	5,500	0		0	0
2000	525,000	525,000	0	0	63	1,746	1,469	277	0	0	0	0	0	3,630	1,076		0	0	5,500	5,500	0		0	0
2001	525,000	525,000	0	0	67	1,808	1,478		0	0	0	0	0	3,844	1,139	1	<u>o</u>	0	5,500	5,500	0		0	0
2002	993,000	525,000	468,000		71	1,874	1,488		91,239	72,540	36,270	4,933	31,337	4,071	1,206	1 ·		57,885	11,100	5,500		4,420	24,752	173,876
2003	1,051,000	525,000	526,000	265,630	75	1,943	1,498		118,360	81,530	40,765	5,544	35,221	4,312	1,277	2		68,897	11,600	5,500	6,100	4,420	26,962	214,219
2004	1,113,000	525,000	588,000	296,940	80	2,017	1,508		151,032	91,140	45.570	6,198	39,372	4,566	1,353	1	53,265	81,562	12,200	5,500	6,700	4,420	29,614	262,208
2005	1,179,000	525,000	654,000	330,270	84	2,095	1,520	575	190,035	101,370	50,685	6,893	43 792	4,835	1,433		62,739	96,070	12,800	5,500	7,300	4,420	32,266	318,371
2006	1,228,000	525,000	703,000	355,015	89	2,158	1,530	638	226,397	108,965	54,483	7,410	47,073	5,087	1,507		70,947	108,637	13,300	5,500	7,800	4,420	34,476	369,510
2007	1,279,000	525,000	754,000	380,770	93	2,244	1,541			116,870	58,435	7,947	50,488	5,351	1,586		80,051	122,578	13,800	5,500	8,300	4,420	36,686	427,047
2008	1,332,000	525,000	807,000	407,535	98	2,325	1,553	•	314,712	125,085	62,543	8,506	54,037	5,629	1,668 1,755		•	138,016	14,400	5,500 5,500	8,900	4,420 4,420	39,338	492,065
2009	1,387,000	525,000	862,000 920,000	435,310	103	2,410	1,565 1,578		367,744 427,948	133,610 142,600	66,805 71,300	9,085 9,697	57,720	5,922 6,230	1 755	ε	101,282 113,718	155,088 174,130	15,000 15,600	5,500	9,500 10,100	4,420	41,990 44,642	564,822 646,720
2010	1,445,000	525,000 525,000	966,000	464,600 487,830	113	2,499 2,577	1,578	921	481,736	149,730	74,865	10,182	61,603 64,683	6,498	1,925		124,538	190,699	16,100	5,500	10,600	4,420	46,852	719,287
2012	1,538,000	525,000		511,565	118	2,658	1,601		540,601	143,730	78,508	10,102	67,830	6,777	2,008			208,576	16,600	5,500	11,100	4,420	49,062	798,239
2013	1,587,000	525,000		536,310	123	2,742	1,613		605,488	164,610	82,305	11,193	71,112	7,069	2,094			228,068	17,200	5,500	11,700	4,420	51,714	885,270
2014	1,637,000	525,000		561,560	129	2,830	1 626	1,204	676,300	172,360	86,180	11,720	74,460	7,373	2 185		162,661	249.074	17,800	5,500	12,300	4,420	54,366	979,741
2015	1,688,000	525,000		587,315	134	2,922	1,639	1,283	753,466	180,265	90,133	12,258	77 874	7,690	2,278		177,436	271,699	18,400	5,500	12,900	4,420	57,018	1,082,183
2016	1,688,000	525,000		587,315	139	3,009	1 652	1,357	797,121	180,265	90,133	12,258	77,874	7,990	2,367		184,356	282,295	18,400	5,500	12,900	4,420	57,018	1,136,434
2017	1,688,000			587,315	145	3,099	1 665		842,479	180,265	90,133	12,258	77,874	8,301	2,460			293,305	18,400	5,500	12,900	4,420	57,018	1,192,802
2018	1,688,000	525,000	1,163,000	587,315	151	3,193	1,678	1,515	889,605	180,265	90,133	12,258	77,874	8,625	2,556	105,727	199,016	304,744	18,400	5,500	12,900	4,420	57,018	1,251,367
2019	1,688,000	525,000	1,163,000	587,315	156	3,290	1 692	-	938,570	180,265	90,133	12,258	77,874	8,962	2,655	109,851	206,778	316 629	18,400	5,500	12,900	4,420	57,018	1,312,217
2020	1,688,000	525,000	1,163,000	587,315	163	3,392	1 707	1,685	989,444	180,265	90,133	12,258	77.874	9,311	2,759	114,135	214,842	328,977	18,400	5,500	12,900	4,420	57,018	1,375,440
2021	1,688,000	525,000	1,163,000	587,315	168	3,486	1,721	1,765	1,036,881	180,265	90,133	12,258	77,874	9,637	2,855	118,130	222,362	340,492	18,400	5,500	12,900	4,420	57,018	1,434,391
2022	1,688,000	525,000	1,163,000	587,315	174	3,584	1,735	1,849	1,085,979	180,265	90,133	12,258	77,874	9,974	2,955		230,144	352,409	18,400	5,500	12,900	4,420	57,018	1,495,405
2023	1,688,000	525,000	1,163,000	587,315	180	3,685	1,749	1,936	1,136,794	180,265	90,133	12,258	77,874	10,323	3,059	126,543	238,200	364,743	18,400	5,500	12,900	4,420	57,018	1,558,555
2024	1,688,000	525,000	1,163,000	587,315	186	3,790	1,765	2,025	1,169,388	180,265	90,133	12,258	77,874	10,685	3,166	130,973	246,537	377,509	18,400	5,500	12,900	4,420	57,018	1,623,915
2025	1,688,000	525,000	1,163,000	587,315	193	3,898	1,780	2,118	1,243,823	180,265	90,133	12,258	77,874	11,059	3,277	135,557	255,165	390,722	18,400	5,500	12,900	4,420	57,018	1,691,563
2026	1,688,000	525,000	1,163,000	587,315	200	4,010	1,796	2,214	1,300,164	180,265	90,133	12,258	77,874	11,446	3,391	140,301	264,096	404,397	18,400	5,500	12,900	4,420	57,018	1,761,579

Notes: Column (5):

Average time value of business passengers in 1996 are estimated to be PHP50 per hour.

Minimum income for choosing air transport over surface transport is estimated to be PHP45, PHP40 and PHP61 respectively for Bacolod-Manila, Iloilo-Manila and Tacloban-Manila. PHP50 is determined as average of those values. This value is assumed to increase at the same rate as the projected GDP per capita annual growth rates, i.e., 6.1% (1996-2000), 5.9% (2000-2005), 5.2% (2005-2010), 4.3% (2010-2015), 3.9% (2015-2020) and 3.5% thereafter. Travel time and passenger fare by sea and air are estimated as weighted average of Manila and Cebu routes using the number of passengers in 2005 as a weight, 75.9% for Manila and 24.1% for Cebu. Travel time of Iloito-Manila is 2.5 hours by air and 19.0 hours by boat. That of Iloito-Cebu is 2.1 hours by air and 9.0 hours by boat. Those include waiting time of 1.5 hours for air and 1.0 hour for boat. Travel fare of Iloito-Manila is PHP1,460 by air and PHP800 by boat. That of Iloito-Cebu is PHP867 by air and 360 by boat.

Columns (14) and (15):

Column (22):

Columns (6) and (7):

Tourism earnings per foreign tourist in 1995 are estimated as PHP 2,250 (daily expenditure) x 4 days (average length of stay) x 30% (rate of value added) based on the data from the Department of Tourism. Tourism earnings per domestic tourist in 1995 are estimated as PHP 2,000 (daily expenditure) x 2 days (average length of stay) x 20% (rate of value added) based on the data from the Department of Tourism. Those values are assumed to increase at the same rate as GDP per capita growth rate.

Cargo airfare is estimated based on the present airfare on each routes weighted by the projected number of passengers in 2005. Cargo airfare per one kilogram of air cargo from Iloito is PHP9.80 for Manila and PHP5.82 for Cebu. Cargo benefit per unit weight of cargo is estimated as 50% of the cargo airfare.

Columns (4), (10), (12) and (13)

This is based on the consideration that consumers' surplus per unit weight of cargo is 50% of the cargo airfare when a straight line demand curve with a price axis intercept (demand=0) being the twice the airfare is assumed. Percentage of business passengers, tourist passengers and their breakdown into foreign and domestic passengers is based on the air passenger interview survey conducted by the Study Team. See Appendix A for details.

Ø

	.		Landing Fee	,			00	rational Cha	irae		Airci	R Parking C	harge		Passer	nger Service	Charge			Passenge	(Terminal Sp	ace Rental]
Year	w	P		OP I	Incremental	W	12	W	OP I	Incremental	WP	WOP	Incrementa	W			OP.	Incremental	W	VP.	W	0P	Incrementa
	Total Weigh	Total Fee	Total Weigh		Revenue	Arcraft	Total Fee	Arcraft	Total Fee	Revenue	•••		Revenue	Departing	Total Fee	Departing	Total Fee	Revenue	Rent Space	Total Fee	Rent Space	Total Fee	Revénue
	(ton)	(000 PHP)	(ton)	(000 PHP)	(000 PHP)	Landings	(000 PHP)	Landings	(000 PHP)	(000 PHP)	(000 PHP)	(000 PHP)	(1000 PHP)	Passengers	(000 PHP)	Passengers	(000 PHP)	(000 PHP)	(sq m)	('000 PHP)	{sq m}	(000 PHP)	(000 PHP)
	r≈. <u>.</u>									· -1		1	(13)=(11)-		(4.5)			(18)=(15)-	110	- m -	00	(22)	{23}=(20)-
	(1)	(2)	(3)	(4)	(5]≃(2)-{4}	(6)	Ø	(8)	(9)	(10)=(7)-(9)	(11)	(12)	(12)	(14)	(15)	(16)	(17)	(17)	- (19)	(20)	(21)		(22)
1995	159,005	3,816	159,005	3,816	0	2,085	1,251	2,085	1,251	0	153	153	0	230,212	2,302	230,212	2,302	0	220 220	132	220 220	132 132	
1996	182,305	4,375	182,305	4,375	0	2 320	1 392	2,320	1,392	0	175	175	0	262,500	2,625	262,500	2,625		220	132	220	132	
1997	182,305	4,375	182,305	4,375	0	2,320	1,392	2,320	1,392	0	175	175	0	262,500	2,625	262,500	2,625		220	132	220	132	
1998	182,305	4,375	182,305	4,375	0	2,320	1,392	2,320	1,392	0	175	175	U	262,500	2,625 2,625	262,500 262,500	2,625		220		220	132	i õ
1999	182,305	4,375	182,305	4,375	0	2,320	1,392	2,320	1,392	e e	175 175	175 175		262,500 262,500		262,500	2,625	Ň	220	132	220	132	1 .
2000	182,305	4,375	182,305	4,375	0	2 320	1,392	2,320	<u>1,392</u> 1,392	×	175	175	<u>v</u>		2,625	262,500	2,625		220	132	220	132	
2001	182,305	4,375	182,305	4,3/5	0	2,320 3,980	1 392 19 104	2 320	1,392	17,712	2,856	-175	2 2 2 2 2	469,000	39,720	262,500	2,625	37,095	1,340	6,432	220	132	
2002	371,830	71,391	182,305	4,375	67,016 74,007	4,185	20,088	2,320	1,392	18,696	3,055	175	2,681 2,880	525,500	42,040	262,500	2,625	39,415	1,340	6,432	220	132	6,300
2003	397,775	76,373	182,305	4,375 4,375	71,997 77,240	4,100	21,120	2,320	1,392	19,728	3,265	175	3,090	556,500	44,520	262,500	2,625	41,895	1,340	6,432	220	132	
2004	425,080	81,615	182,305	4,375	83,177	4,400	22,272	2,320		20,880	3,502	.175	3,327	589,500	47,160	262,500	2,625	44,535	1,340	6 432	220	132	6 300
2005	456,000	87,552		4,375	87.049	4,810	23,088	2 320	1,392 1,392	21,696	3,657	175	3,482	614,000	49,120	262,500	2,625	46 495	1 800	8,640	220	132	
2006 2007	476,170 515,610	91,425 98,997	182,305	4,375	94,622	4 685	22 488	2 320	1,392	21,096	3,960	175	3,785	639,500	51,160	262,500	2,625	48,535	1,800	8,640	220	132	
2008	540,400	103,757	182,305	4,375	99,381	4,835	23,208	2,320	1,392	21,816	4,150	175	3,975	666,000	53,280	262,500	2,625	50,655	1,800	8,640	220	132	8,508
2009	540,400	103,742	182,305	4,375	104,367	4,985	23.928	2,320	1,392	22,536	4,350	175	4,175	693,500	55,480	262,500	2,625	52,855	1,800	8,640	220	132	8,506
2010	593,270	113,908	182,305	4,375	109.533	5 115	24,552	2,320	1,392	23,160	4,556	175	4,381	722,500	57,800	262,500	2,625	55,175	1,800	8,640	220	132	
2011	614,260	117,938	182,305	4,375	113,563	5,225	25,080	2,320	1,392	23,688	4,718		4,543	745,500	59,640	262,500	2,625	57,015	1,800	8,640	220	132	8,508
2012	635,610	122,229	182,305	4,375	117,854	5,340	25,632	2 320	1,392	24,240	4,889	175	4 7 1 4	769,000	61,520	262,500	2,625	58,895	1,800	8,640	220	132	
2013	659,600	126,643	182,305	4,375	122,268		26,208	2 320	1,392	24,816	5,066	175	4,891	793,500	63,480	262,500	2,625	60,855	1,800	8,640	220	132	8,508
2014	683,845	131,298	182,305	4,375	126,923	5,580	26,784	2,320	1,392	25,392	5,252	175	5,077	818,500	65,480	262,500	2,625	62,855	1,800	8,640	220	132	
2015	703,440	136,020	182,305	4,375	131,645	5,700	27,360	2,320 2,320	1,392	25,968	5,441	175	5,266	844,000	67,520	262,500	2,625	64,895	1,800	8,640	220	132	
2016	708,440	136,020	182,305	4,375	131,645	5,700	27,360	2,320	1,392	25,968	5,441	175	5,266	844,000	67,520	262,500	2,625	64,895	1,800	8,640	220	132	
2017	708,440	136,020	182,305	4,375	131,645	5,700	27,360	2,320	1,392	25,968	5,441	175	5,266	844,000	67,520	262,500	2,625	64,895		8,640	220	132	
2018	708,440	136,020	182,305	4,375	131,645	5,700	27,360	2,320	1,392	25,968	5,441	175	5,266	844,000	67,520	262,500	2,625	64,895	1,800	8,640	220	132	8,508
2019	708,440	136,020	182,305	4,375	131,645	5,700	27,360	2,320	1,392	25,968	5,441	175	5,266	844,000	67,520	262,500	2,625	64,895	1,800	8,640	220	132	
2020	708,440	136,020	182,305	4,375	131,645	5,700	27,360	2,320	1 392	25,968	5,441	175	5,265	844,000	67,520	262,500	2,625	64,895	1,800	8,640	220	132	8,508 8,508
2021	708,440	136,020	182,305	4,375	131,645	5,700	27,360	2,320	1,392	25,968	5,441	175		844,000	67,520	262,500	2,625	64,895	1,800	8,640	220 220	132	
2022	708,440	136,020	182,305	4,375	131,645	5,700	27,360	2,320	1,392	25,968	5,441	175		844,000	67,520 67,520	262,500	2,625	64,895 64,895	1,800 1,800	8,640 8,640	220	132	
2023	708,440	136,020	182,305	4,375	131,645	5,700	27,350	2,320	1,392	25,968	5,441	175	5,265	844,000	67,520	262,500	2,625 2,625	64,890	1,800	8,640	220	132	8,508
2024	708,440	136,020	182,305	4,375	131,645	5 700	27 360	2,320	1,392	25,968	5,441	175	5,266 5,265	844,000	67,520 67,520	262,500 262,500	2,620	64,895	1,800	8,640	220	132	
2025	708,440	136,020	182,305	4,375	131,645	5,700	27 360	2,320	1,392	25,968 25,968	5,441	175	5,265	844,000	67,520	262,500	2.625	64,895		8,640	220	132	8,508
2026	708,440	136,020	182,305	4,375	131,645	5,700	27,360	2,320	1,397	72'80 0	5,441	1/5	l ⊃'₹¢ö	049,000	67,520	202,000	2,025	1 04,050	1,000	10,040	1	Ļ <u>,∨</u> 4	0, 000

r			Caroo Z	erminal Space	e Rental	r	Conce	ssion Privile	ce Fee		Aviati	on Fuel Sure	haroe		6	tilities Servic	es	Traffic	Commercia	Miscella-	Total
ł	Year	W				Incremental	WP		Incremental	W	5	W	0P	Incremental	WP	WOP	incrementa	Related	Services		Incremental
		Rent Space	Total Fee	Rent Space	Tulal Fee	Revenue			Revenue	Fuel Supphy	Total Fee	Fuel Succh	Total Fee	Revenue		· ·	Revenue	Services		Revenue	Revenue
		(sq m)	(000 PHP)	(sq m)	(000 PHP)	('000 PHP)	(000 PHP)	(000 PHP)	(000 PHP)	(KL)	(000 PHP)		(000 PHP)	(000 PHP)	(000 PHP)	(000 PHP)	(000 PHP)	(000 PHP)	(000 PHP)	(000 HHb)	(1000 PHP)
		(24)	(25)	(26)	(27)	(28)=(25)- (27)	(29)	(30)	(31)=(29)- (30)	(32)	(33)	(34)	(35)	(36)≠(33)- (35)	(37)	(38)	(39)=(37)- (38)	(40)=(5)+(10 }+(13)+(18)		(42)=(39)	{43}=[40}+(4 1}+{42}
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	1997	Ň		ň	n n	ň	39	30	ŏ	õ	ň	ŏ	i č	· ō	ō	0	0	Ó	0	0	0
1	1998	· · · · ·	Ň	l š	· õ	ň	39	. 40	ň	្តី	ñ	ň	i õ	0	- ō	- ° 0	- ŏ	Ō	o	: 0	0
	1999			i š		ŏ	39		l õ	õ	ň	ă	i ă	i õ	ĺč	0	Ó	Ó	Ó	0	l `ol
	2000	0	ň		1 N	6	39	39	i õi	õ	Ŏ	Ö	ŏ	ŏ	ŏ	0	ō	ò	0	0	0
ŀ	2001	ň	ň	ŏ	ŏ	ŏ	39	39	ŏ	ō	Ō	Ö	Ŏ	ō	0	0	0	0	. 0	0	0
	2002	1,280	3,686	i õ	ŏ	3,686	4,502		4,463	15,339	3,681	0	l ō	3,681	778	0	778	124,504	18,131	778	43,413
	2003	1,280	3,686		0	3,686	4,502		4 463	16.475	3 954	C	0	3 954	778	- 0	778	132,988		778	
	2004	1,280	3,686		ñ	3,686	4,502			17 612	4 227	0	Ó	4 227	778	. 0	778	141,953	18,677	778	
	2005	1,280	3,686		ň	3,686	4,502	39	4,463	18 749	4,500	Ó	l o	4,560	778	0	778	151,919	18,949	778	
ł	2006	1.840	5,295		ŏ	5,299	6,048	39	6,009	19.924	4 782	ō	Ó	4,782	935	ō	935	158,722	24,596	935	184,255
	2007	1,840	5,299		ŏ	5,299	6,048			21,093	5,064	Ö	l o	5,064	935		935	168,038	24,880	935	
	2008	1,840			ŏ	5,299	6.048			22,275	5,346	Ó	l o	5,346	935	. 0	935	175,828	25,162	935	201,925
	2009	1,840			í õ	5,299	6,048		6,009	23,450	5,628	İÖ	0	5,628	935	0	935	183,932		935	
	2010	1,840			l õ	5,293	6 0 4 8			24.626	5,910	0	0	5,910	935	0	935	192,249	25,726	935	
ł	2011	1.840			0	5,299	6,048	39		25,267	6,064	0	0	6,064	935	0	935	198,808	25,880	935	
	2012	1,840			0	5,299	6,048	39	6,009	25,908	6,218	l o	0	6,218	935		935	205,703		935	
_	2013	1,840			Ō	5,299	6,048	39		26.549	6.372	0	0	6,372	935	0	935	212,830		935	
1	2014	1,840			Ō	5,299	6,048	39		27,190	6,526	(O	0	6,526	935	0	935	220,247	26,342	935	
- 1	2015	1,840			Ó	5,299	6,048	. 39	6 009	27,831	6,680	0] 0	6,680	935		935	227,774		935	
. 1	2016	1.840			0	5,299	6,048	39	6,009	27,831	6,680	. 0	0	6,680	935		935	227,774	26,496	935	
	2017	1,840			0	5,299	6,048			27,831	6,680	0	- I O	6,680	935		935	227,774		935	
	2018	1.840			ŏ	5,299	6,048			27 831	6 680	0	0	6,680	935		935	227,774	26,496	935	
	2019	1,840			0	5,299	6,048			27,831	6,680	0	0	6,680	935		935	227,774		935	
1	2020	1.840			0	5,299	6 048	39	6,009	27 831	6 680		0	6,680	935		935	227,774		935	
. 1	2021	1,840			0	5,299	6,048	39	6.009	27,831	6,680		0	6,680	935		935	227,774	26,496		
	2022	1,840			0	5,299	6,048	39	6,009	27,831	6,680	(0	0	6,680	935		935	227,774	26,496	935	
	2023	1,840			.0	5,299	6,048	39	6,009	27,831	6,680	6 0	0	6,680	935		935	227,774		935	
	2024	1.840			0	5,299	6,048	39	6,009	27,831	6,580	• •	0	6,680	935		935	227,774	26,496	935	
	2025	1.840			Ó	5,299	6,048	39		27,831	6,680	. 0	0	6,680	935		935	227,774	26,496	935	
	2026	1.840				5,299	6,048			27,831	6 680	0	0	6,680	935) Ö	935	227,774	26,496	935	255,205
	2020	1 1,04	1	<u> </u>	1 <u>~</u>	1 <u>v.233</u>	0,040	J	1 0,000			۰۲	<u>د</u> ــــــــــــــــــــــــــــــــــــ		1	·	4				•

 Notes:
 The following prices of airport charges are used for calculation based on the present conditions.

 The above table assumes 700% increases in the prices of airport charges in 2001 before the new facilities are completed.

 a) Landing Charges:
 PHP 24 per ton of landing aircraft. MTOW of MJ, SJ and TP is assumed to be 165 tons, 58 tons and 21 tons respectively.

 b) Operational Charges:
 PHP 600 per landing.

 c) Parking Charges:
 Estimated as 4% of the total landing charges based on the past financial records.

 d) Passenger Service Charges:
 PHP 10 per departing passenger.

 e) Passenger Terminal Space Rent:
 PHP 50 per sq m per month.

 g) Concession Fee:
 PHP 30 per sq.m per month.

 g) Concession Fee:
 PHP 30 per kill ter of avriation fuel sales.

 h) Aviation Fuel Surcharge:
 PHP 30 per kill titer of avriation fuel sales.

 i) Utility Charges:
 Estimated as 110% of actual anticipated cost.

Appendix 6.4.3 Forecast of Incremental Revenues by the Project for Ilolio Airport

A

Meteorological Analysis for Tacloban Airport

(AND

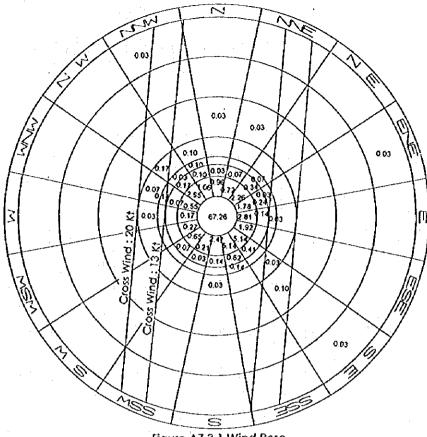


Figure A7.3.1 Wind Rose

Table A7.3.1 All Weather Wind Coverage

Direction	Cross Wind (Kt)	Tale Wind (KI)	Wind Coverage (%)
RWY 36	13	5	87.67
	20	5	88.00
RWY 18	13	5	92.22
	20	5	92.47
RWY 36/18	13	0	99.45
	20	0	99.88

Toble A7.3.2 Cloud Height and Visibility Matrix

				Visibility (m)				
	-800	-1600	-2400	-3200	-4000	-4800	-5600	5600-	Totol
0-100	0	0	0	0	0	0	0	0	0
- 200	0	0	0	0	0	0	0	1	1
- 300	0	0	0	0	0	0	0	0	· 0
- 400	0	0	0	• 0	0	0	0	0	0
- 500	0	0	0	0	0	· 0	0	0	0
- 600	0	0	0	0	· 0	0	. 0	0	0
	0	0	0	0	0	0	0	0	0
- 800	0	0	0	0	0	0	0	0	0
	. . 0	0	0	Ó	0	0	0	0	0
- 1000	0	0	0	Ó	Û	0	0	0	; 0
- 1100	0	0	0	0	0	0	0	0	0
- 1200	0	0	0	0	0	0	0	0]	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	- O
	0	0	0	2	0	0	1	13	16
	0	0	. 0	0	0	7	8		1,803
	0	0	0	0	0	3	0		1,100
Totol	0	0	0	2	0	10	9	2,879	2,920
	- 200 - 300 - 400 - 500 - 700 - 800 - 900 - 1000 - 1100 - 1200 - 1300 - 1400 - 1500 1500 - < 5/8	0-100 0 -200 0 -300 0 -400 0 -500 0 -600 0 -700 0 -800 0 -900 0 -1000 0 -1100 0 -1200 0 -1300 0 -1500 0 1500- 0 < 5/8	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

Table A7.3.3 Cloud Height/Visibility Coverage

	100/g VI '9'9 CION	u neigin/ visioliny	concluge	
	OCH (fl)	VIS (km)	Coverage	
Existing Minima	733	3.20	99.97%	

Appendix 7.3.2

H

PAVEMENT INVESTIGATION REPORT: TACLOBAN AIRPORT

1. Runway and Taxiway

The structure of the runway and taxiway pavement is 25cm aggregate base, 23cm cement concrete slab and two layers of asphalt overlay of 7cm and 10cm thick on it. The initial construction of the cement concrete pavement dates back to some 30 years ago. The overlay work was undertaken to accommodate heavier aircraft. The latest overlay work was completed in 1990.

In many places, the gravel, contained pebbles, is exposed to the pavement surface, probably due to lack of compaction at the time of construction. Honey-comb surface, which was caused by poor asphalt mix or poor workmanship (insufficient fishing by finisher and rake-man) is also widely observed on the runway pavement. In addition, hair cracks due to aging and weathering are everywhere. The widened part of the runway, 7.5m on each side of the runway, has reflection cracks along the joint with the older pavement.

As a temporary measure, an asphalt overlay, using fine grade asphalt concrete, with a minimum thickness of 5cm would be necessary in a few years.

The taxiway pavement is generally in the same condition as the runway pavement, which is aged and has many cracks. Reflection cracks as wide as 10mm were observed. The past patching work did not improve the unevenness of the surface. Asphalt fillers should be used for the reflection cracks as soon as possible. An asphalt overlay, using fine grade asphalt concrete, with a minimum thickness of 5cm would be necessary in a few years.

2. Apron

The structure of the apron pavement is 25cm aggregate base and 23cm cement concrete slab on it. The standard size of the slabs is 6.0m by 3.0m and 3.0m by 3.0m. The apron was constructed in 1969 and expanded in 1981.

The coment concrete slabs have major transverse cracks, broken edges, corner cracking and cracks along joints. However, those represents less than 3% of the total slabs.

As a temporary countermeasure, filling with joint sealant is recommended. No overlay would be required for the present traffic load.

3. Vehicle Parking Area and Airport Access Road

The condition of the pavement is generally good. However, the surface of the asphalt concrete pavement is in many places rough. In particular, the northern part of the vehicle parking area have lost 1-2cm surface and is very uneven. It seemed that a thin overlay in the past to correct unevenness was stripped off. In addition, some part of the asphalt surface is cut back by oil.

The pavement condition of the airport access road, linking the terminal area and Tacloban's city network, is generally good. There are only minor cracks and cut-back of asphalt surface. No major repair would be necessary.

8

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Passenger Terminal Space Analysis for Tacloban Airport

		Current	Remork
		Data	
a: Number of peak hour originating passengers		140	
b: Number of peak hour landside fronsfer passengers		0	
c: Number of peak hour departing passengers		140	
d: Number of peak hour terminating passengers		140	1
g: Time of first passenger at gate lounge (mins, before :	510)	50	
m: Moximum number of seats on largest aircraft handle	ed al gate in question	14)	
o: Number of visitors - Originating passengers		1.8	
o: Number of visitors - Terminating passengers		1.8	
p: Proportion of passengers using car/taxi - Originating	possengers	56%	
p: Proportion of passengers using car/taxi - Terminating	passengers	56%	
q: Proportion of passengers arriving by wide-body airc	roll during peak hour	0%	
r: Proportion of possengers arriving by narrow-body air	craft during peak hour	100%	
s: Maximum number of seats on largest aircraft hondled	d at airport	141	
I1: Average processing time per passenger at check-in	desk (mins.)	2.0	
		Required	
1. Departure Curb	L = (0.095 a p) 1.1 =	8	m ·
2. Departure Concourse	A = 0.75 [a (1 + o) + b] =	294	sq.m
3. Security Check (Check-in Boggage)	N = (o + b) / 300 =	0.5	
4. Check-in Queuing Area	A = {0.25 (a + b)} 1,1 =	39	sai.m
5. Check-in Counters	N = [(a + b) t] / 60] 1.1 =	5.1	
5. Security Check (Gate Lounge)	N = 0.2 m / (g - 5) =	0.6	
?. Gale Lounge	A = 1.375 o x 0.5 x 1.3 =	125	sq.m
3. Baggage Claim Area	A = (0.9 d) .] =	139	sqm
Number of Boggage Claim Devices - Narrow Body	N = dr / 300 =	0.5	
0. Arrival Concourse Waiting Area	A = [0.375 (d + b + 2 d o)] 1.1 =	265	sq.m
1. Arrival Curb	L = (0.095 d p) 1.1 =	8	

6

REQUIRED ASPHALT OVERLAY THICKNESS FOR TACLOBAN AIRPORT

1) Existing Pavement (PCN39R/B/W/U)

Asphalt Overlay:10cmAsphalt Overlay:7cmPCC Slab:23cmBase Course:25cm

2) ACN of Typical Aircraft Operating at the Airport

B737-300 at Maximum Ramp Weight (56,470kg) : ACN = 35A320 at Maximum Ramp Weight (68,400kg) : ACN = 42A300-B4 at 140ton : $ACN = (52 - 23) / (157,000 - 87,826) \times (140,000 - 87,826) + 23 = 45$

 Overlay Required for A320 Operations (The study on pavement for Bacolod Airport indicates A320 is critical rather than A300, for more details refer to Appendix 5.5.1.)

Assumed CBR = 10% Assumed K on Top of Subgrade = $80MN/m^3$ Assumed Concrete Flexural Strength: 650 psi Assumed Equivalent Annual Departure: 3,000 K on Top of Base Course: 360pci Thickness of New Rigid Pavement: $h_d = 13$ inches = 33 cm F-Factor: 0.89 Condition Factor of Existing Rigid Pavement: $C_b = 0.9$ Thickness of Asphalt Overlay: $t = 2.5 \times (F \times h_d - C_b \times h_c) = 2.5 \times (0.89 \times 33 - 0.9 \times 23) = 22$ cm Effective Thickness of Existing Asphalt Overlay: 14 cm

Required Overlay Thickness: 22 - 14 = 8 cm

	Air P	Passenger Tr	affic		· · · · · · · · · · · · · · · · · · ·	Time Savir	nos Beriefit						Touris	m Earnings E	Benefit					Be	nefit from Car	3 0		Total
	Passengers	Passengers	Incremental	Incremental	Time	Cost of	Cost of	Time Savings	Time Savings	Incremental	Incremental	Incremental	Incremental	Tourism	Tourism	Tourism	Tourism	Tourism	Cargo	Cargo	Incremental	Cargo	Cargo	Benefit
Year	in	in in	Passengeis	Business	Value of	Travel	Travel	8enefit	Benefit	Tourist	Tourists	Foreign	Domestic	Earnings	Earnings	Earnings	Earnings	Earnings	in	in	Cargo	Benefit	Benefit	by
	WP	WOP	in	Passengers	Business	by Bus	by Air	per	by the	Passengers		Tourist	Tourist	Benefit per	Benefit per	Benefit from	Benefit from	Benefit	WP	WOP	in WP	per ton of	by the	the
	Case	Case	WP	រោ	Passengers	Transport	Transport	Business	Project	In	WP	in	in	Foreign	Domestic	Foreign	Domestic	by the	Case	Case	Case	Cargo	Project	Project
			Case	WP				Passenger		WP	Case	WP	WP	Tourist	Tourist	Tourist	Tourist	Project					ļ	
				Case	(PHP/hour)	(PHP)	(PHP)	(PHP)	(PHP '000)	Case		Case	Case	(PHP)	(PHP)	(PHP '000)	(PHP '000)	(PHP '000)	(ton)	(ton)	(ton)	(PHP/ton)	(PHP '000)	(PHP '000
	(1)	(2)	(3)=(1)-(2)	(4)=(3)×48. 6%	(5)	(6)=(5)x20. 4 hours +506	(7)=(5)x2.5 hours +1,640	(8)	(9)=(4)×(8)	(10)≠(3)X15 .6%	(11)=(10)/2	(12)=(11)×1 4.5%	(13)≭(11)x8 5.5%	(14)	(15)	(16)=(12)x(14)	(17)=(13)×(15)	(18)=(16)+(17)	(19)	(20)	(21)=(19)- (20)	(22)	(23)=(21)x(22)	(24)=(9)+ 8)+(23)
1995	258,190	258,190	C	0					0	0	0	0	0	2,700	800		0	0	2,881	2,881	0		0	
1996	292,000	292,000	0	0	50	1,526	1,765	-239	0	0	0	0	0	2,855		1	0	0	3,100	3,100	0		0	
1997	292,000	292,000	0	0	54	1,608	1,775	-167	• 0	0	0	0	0	3,039	901		0	. 0	3,100	3,100	0		0	
1998	292,000	292,000	0	0	58	1,689	1,785	-96	0	. 0	: 0	U	0	3,225	956		0	0	3,100	3,100	0		- 0	1
1999	292,000	292,000		0	63	1,791	1,798	-5	0			· U	0	3,422	1,014		. U	0	3,100	3,100 3,100	0			1
2000	292,000 292,000	292,000 292,000			68 73	1,893 1,995	1,810	83 173	0				0	3,630 3,844	1,076			0	3,100 3,100	3,100	0		0	
2001	545,000	292,000	253,000	122,958	73	,	1,838	280	34,441	39,468	19,734	2,661	16,873	4,071	1,206		20,354	32,003	4,800	3,100	1,700	4,930	8,381	74,8
2002	580,000	292,000	288,000	139,968	85		1,853	388	54,238	44,928			19,207	4,312	1,277			38,580	5,000	3,100	1,900	4,930	9,367	102.1
2004	617,000	292,000		157,950		2,342	1,865	477	75,342	50,700	i i		21,674	4,566			· ·	46,105	5,200	3,100	2,100	4,930	10,353	131,8
2005	655,000	292,000	363,000	176,418	98	2 505	1,885	620	109,414	56,628	1	4,106	24,208	4,835			34,683	54 534	5,600	3,100	2,500	4,930	12,325	176 2
2006	682,000	292,000	390,000	189,540	104	2,628	1,900	728	137,909	60,840	30,420	4,411	26,009	5,087	1,507	22,437	39,200	61,637	5,800	3,100	2,700	4,930	13,311	212,8
2007	710,000	292,000	418,000	203,148	111	2,770	1,918	853	173,265	65,208	32,604	4,728	27,876	5,351	1,586	25,298	44,199	69,498	6,000	3,100	2,900	4,930	14,297	257,0
2008	740,000	292,000	448,000	217,728	118		1,935	978	212,982	69,838			29,877	5,629			1	78,359	6,200	3,100	3,100	4,930	15,283	306,6
2009	771,000	292,000	479,000	232,794	126	3,076	1,955	1,121	261,055	74,724		5,417	31,945	5,922	1,755	1 · ·	2 · · ·	88,137	6,400	3,100	3,300	4,930	16,269	365,4
2010	803,000)	292,000	511,000	248,346	134	3,240	1,975	1,265	314,058	79,716		.	34,079	6,230	the second s			98,915	6,800	3,100	3,700	4,930	18,241	431,2
2011	828,000	292,000	536,000	260,496	141	3,382	1,993	1,390	362,063	83,616		6,062	35,746	6,498		I	68,823	108 216	7,000	3,100	3,900	4,930	19,227	489.5
2012	854,000	292,000	562,000	273,132		-	2,013	1,533 1,676	418,739	87,672 91,884		6,356 6,662	37,480 39,280	6,777 7,069	2,008		75,265	118,344 129,363	7,200	3,100 3,100	4,100	4,930 4,930	20,213 21,199	557,2 530,4
2013 2014	881,000 909,000	292,000 292,000	589,000 617,000	286,254 299,862		3,709 3,892	2,033	1,837	479,848 550,966	91,004 96,252	· ·		39,280 41,148	7,069				129,363	7,600	3,100	4,500	4,930	21,199	714,4
2014	938,000	292,000	646,000	313,956		4,076	2,005	1,999	627,441	100,776		7,306	43,082	7,690	· · · ·		98,161	154,346	8,000	3,100	4,900	4,930	24,157	805,9
2016	938,000	292,000	646,000	313,956	184	4,260	2,100	2,160	678,019	100,776	50,388	7,306	43,082	7,990	2,367		101,990	160,365	8,000	3,100	4,900	4 930	24,157	862.5
2017	938,000	292,000		313,956			2,123	2,321	728,598	100,776			43,082	8,301	2,460		105,967	166,619	8,000	3,100	4,900	4 930	24,157	919.3
2018	938,000	292,000		313,956		4,627	2,145	2,482	779,176	100,776	· ·		43,082	8,625	2,556	63,018	110,100	173,118	8,000	3,100	4,900	4,930	24,157	976,4
2019	938,000	292,000	646,000	313,958	213		2,173	2,679	840,994	100,776	50,388	7,306	43,082	8,962	2,655	1	114,394	179,869	8,000	3,100	4,900	4,930	24,157	1.045,0
2020	938,000	292,000	646,000	313,956	and the second	5,055	2,198	2,858	897,192	100,776	50,388	7,306	43,082	9,311	2,759	68,029	118,855	186,884	8,000	3,100	4,900	4,930	24,157	1,108,2
2021	938,000	292,000	646,000	313,956	233	5,259	2,223	3,037	953,390	100,776	50,388	7,306	43,082	9,637	2,855	70,410	123,015	193,425	8,000	3,100	4,900	4,930	24,157	1,170,9
2022	938,000	292,000		313,956		1	2,248	3,216	1,009,588	100,776	•	7,306	43,082	9,974	2,955	r i		200,195	8,000	3,100	4,900	4,930	24,157	1,233,9
2023	938,000	292,000		313,956	1		2,275	3,413	1,071,406	100,776	50,388	7,306	43,082	10,323	3,059			207,202	8,000	3,100	4,900	4,930	24,157	1,302,7
2024	938,000	292,000		313,956	4				1,138,844	100,776				10,685				214,454	8,000	3,100	4,900	4,930	24,157	1,377,4
2025	938,000	292,000	646,000	313,956			2,335	3,842	1,206,282	100,776	50,388		43,082	11,059		and the second data was not a second data wa	141,163	221,960	8,000	3,100	4,900	4,930	24,157	1,452,3
2026	938,000	292,000	646,000	313 956	278	6,177	2,335	3,842	1,206,282	100,776	\$0,388	7,306	43,082	11,446	3,391	83,625	146,103	229,728	8,000	3,100	4,900	4,930	24,157	1,450.1

Appendix 7.4.2 Economic Benefits by the Project for Tacloban Airport

Notes: Column (5):

Average time value of business passengers in 1996 are estimated to be PHP50 per hour.

Minimum income for choosing air transport over surface transport is estimated to be PHP45, PHP40 and PHP61respectively for Bacolod-Manila, Iloilo-Manila and Tacloban-Manila. PHP50 is determined as average of those values. This value is assumed to increase at the same rate as the projected GDP per capita annual growth rates, i.e., 6.1% (1996-2000), 5.9% (2000-2005), 5.2% (2005-2010), 4.3% (2010-2015), 3.9% (2015-2020) and 3.5% thereafter. Travel time and passenger fare by sea and air are estimated as weighted average of Manila and Cebu routes using the number of passengers in 2005 as a weight, 86.2% for Manila and 13.8% for Cebu. Travel time of Tacloban-Manila is 2.6 hours by air and 22.5 hours by bus and ferry. That of Tacloban-Cebu is 2.0 hours by air and 7.0 hours by bus and boat from Omroc City. Those include waiting time of 1.5 hours for air and 1.0 hour for boat. Travel fare of Tacloban-Manila is PHP1,768 by air and PHP555 by bus. That of Tacloban-Cebu is PHP838 by air and 200 by bus and boat.

Columns (14) and (15):

Columns (6) and (7):

Tourism earnings per foreign tourist in 1995 are estimated as PHP 2,250 (daily expenditure) x 4 days (average length of stay) x 30% (rate of value added) based on the data from the Department of Tourism. Tourism earnings per domestic tourist in 1995 are estimated as PHP 2,000 (daily expenditure) x 2 days (average length of stay) x 20% (rate of value added) based on the data from the Department of Tourism. Those values are assumed to increase at the same rate as GDP per capita growth rate.

Column (22):

Cargo airfare is estimated based on the present airfare on each routes weighted by the projected number of passengers in 2005. Cargo airfare per one kilogram of air cargo from Tacloban is PHP10.63 for Manila and PHP5.04 for Cebu. Cargo benefit per unit weight of cargo is estimated as 50% of the cargo airfare.

Columns (4), (10), (12) and (13)

This is based on the consideration that consumers' surplus per unit weight of cargo is 50% of the cargo airfare when a straight line demand curve with a price axis intercept (demand=0) being the twice the airfare is assumed. Percentage of business passengers, tourist passengers and their breakdown into foreign and domestic passengers is based on the air passenger interview survey conducted by the Study Team. See Appendix A for details.

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Appendix 7.4.3 Incremental Revenues by the Project for Tacloban Airport

			Landing Fee					rational Chi	arge	:	Aircra	Parking C	harge		Passer	ger Service	Charge			Passenger	Terminal S	pace Rental	
Year	Ŵ		W		Incremental	W	Ϋ́Ρ	W	ÔP	Incremental	WP	WOP	incremental	M	IP.	W		incremental	Ŵ	/P	W	OP	Incremental
	Total Weigh		lotal Weigh		Revenue		Total Fee	Aircraft.	Total Fee	Revenue		· ·	Revenue	Departing	Total Fee	Departing	Total Fee	Revenue	Rent Space	Total Fee	Rent Space	Total Fee	Revenue
	(ton)	(000 PHP)	(ton)	(000 PHP)	(000 PHP)	Landings	(000 PHP)	Landings	(000 PHP)	{'000 FHP)	(000 PHP)	(000 PHP)	(000 PHP)	Passengers	(000 PHP)	Passengers	(000 PHP)	(000 PHP)	(sq m)	(000 PHP)	(sq m)	(000 PHP)	(000 PHP)
		121		145	(5)=(2)-(4)	165	475	(1)	(0)	(10) -(7) 101	144	(17)	{13}=(11)-		(17)		/17.	(18;=(15)-	(13)	40.01			(23)=(20)-
		(7)	(3)	(4)	(3)-(2)(4)	(6)	(7)	(8)	(9)	(10)=(7)-(9)	{11}	(12)	(12)	- (14)	(15)	(16)	(17)	(17)	{19}	(20)	(21)	(22)	(22)
1995	75,210	1,805	75,210	1,805	0	1,525	915	1,525	915	0	72	72	0	129,095	1,291	129,095	1,291	0	160	96	160	96	0
1996	86,420	2,074	86,420	2,074	0	1,490	894	1,490	894	0	83	83	0	146,000	1,460	146,000	1,460	0	160	96	160] 96	S 0
1997	85,420	2 074	86,420	2,074	0	1,490	894	1,490	894	0	83	83	0	146,000	1,460	146,000	1,460	0	160	96	160	96	0
1998	86,420	2 074	86,420	2,074	0	1,490	894	1,490	894	0	83	83	÷ 0	146,000	1,460	146,000	1,460	0	160	96	160	96	0
1999	86 420	2.074	86,420	2,074	0	1,490	894	1,490	894		83	83	0	146,000	1,460	146,000	1,460	. 0	160	96	160	96	0
2000	86,420	2,074	86,420	2,074	¥	1,490	894 894	1,490	894	0	83	83	0	146,000	1,460	146,000	1,460	0	160	96	160		0
2001 2002	86,420 201,250	38,640	86,420 86,420	2,074 2,074	36,566	1,490	10,368	1,490	894		83	83		146,000	1,460	146,000	1,460	0	160	96	160	96	
2002	201,250	41,405	86,420	2,074	39,332	2,160 2,270	10,305	1,490 1,490	894	9,474	1,546	83	1,463	272,500	21,800	146,000	1,460	20,340	960	4,608	160	96	
2003	231,710	44,488	86,420	2,074	42,414	2,390	11,472	1,490	894	10,002	1,655	83	1,573	290,000	23,200	146,000	1,460 1,460	21,740	960	4,608	150	96	4512
2004	248.010	47,618	86,420	2,074	45.544	2,590	12.024	1,490	894 834		1,905	83 83	1,697	308,500 327,500	24,680	146.000 146.000	1,460	23,720	960 960	4,608 4,608	160 160		4,512
2006	259,070	49 741	86,420	2,074	47 667	2,585	12,408	1,490	894		1,930		1,907	341.00	27,280	146,000	1,460	25,820	1 160	5,568	160	96	
2007	271,490	52 126	86,420	2,074	50.052	2,670	12,816	1,490	894	11,922	2,085	83	2,002	355,000	28,400	146,000	1,460	26,940	1 160	5,568	160	96	
2008	284,490	54,622	86,420	2,074	52 548	2,760	13,248	1,490	894	12,354	2,185	83	2,102	370,000	29,600	146,000	1,460	28,140	1 160	5,568	160	6	5 472
2009	296,910	57,007	86,420	2,074	54,933	2,850	13,680	1,490	894	12,786	2,280	83	2,197	385,500	30,840	146,000	1,460	29,380	1 160	5,568	160	96	
2010	311,025	59,717	86,420		57.643	2,955	14,184	1,490	894	13,290	2,389	83	2,306	401.500	32,120	146,000		30,660	1 160	5,558	160	96	5,472
2011	321,795	61,785	86,420	2,074	59 711	3,030	14,544	1,490	894	13,650	2,471	83	2,388	414,000	33,120	146,000	1,460 1,460	31,650	1 160	5,568	160	96	
2012	332,565	63,652	86,420	2,074	61,778	3,105	14,904	1,490	894	14,010	2,554	83	2,471	427,000	34,160	146,000	1,460	32,700	1 160	5,568	160	96	
2013	344,450	66 134	86,420	2,074	64 060	3,190	15,312	1,490	894	14,418	2,645	83	2,562	440,500	35,240	146,000	1,460	33,780	1 160	5,568	160	96	5 472
2014	356,045	68,361	86,420	2,074	66,287	3,270	\$5,606	1,490	894	14,802	2,734	83	2,651	454,500	36,360	146,000	1,460	34,900	1,160	5,568	160	96	5,472
2015	368,220	70,698	86,420	2,074	68,624	3,365	16,152	1,490	894	15,258	2,828	83	2,745	469,000	37,520	146,000	1,460	36,060	1,160	5,568	160		
2016	368,220	70,698	86,420	2,074	68,624	3,365	16,152	1,490	894	15,258	2,828	83	2,745	469,000	37,520	146,000	1,460	36,060	1 160	5,568	160	96	
2017	368,220	70,698	86,420	2,074	68 624	3,365	16,152	1,490	894	15,258	2,828	83	2,745	469,000	37,520	146,000	1,460	36,060	1,160	5,568	160	96	
2018	368,220	70,698	86,420	2,074	68,624	3,365	16,152	1,490	894	15,258	2,828	83	2,745	469,000	37,520	146,000	1,460	36,060	1,160	5,563	160	96	5,472
2019	368,220	70,698	86,420	2,074	68 624	3,365	16,152	1,490	894	15,258	2,828	83	2,745	469,000	37,520	146,000	1,460	36,060	1,160	5,568	160	96	5,472
2020	368.220	70,698	86,420	2,074	68 624	3,365	16,152	1,490	894		2,828	83	2 7 4 5	469,000	37,520	146,000	1,460	36,060	1,160	5,568	160		
2021 2022	368,220	70,698	86,420 96,420	2,074	68,624	3,365	16 152	1,490	894		2,828	83	2.745	469,000	37,520	146,000	1,460	36,060	1,160	5 568	160	- 96	
2023	368,220 368,220	70,698 70,698	86,420 86,420	2,074 2,074	68,624 68,624	3,365 3,365	16,152	1,490 1,490	894	15,258	2,878	83	2,745	469,000	37,520	146,000	1,460	36,060	1,160	5,568	\$60 460	96	
2024	368,220	70,698	86,420	2,074	68,624	3,365	16,152 16,152	1 490	.894	15,258	2,828	83	2,745	469,000	37,520	146,000	1,460	36,060	1,160	5,568	160	96	
2025	368 220	70 698	86,420	2,074	68.624	3,365	10,152	1,490	894 894	15,258 15,258	2,828 2,828	83	2,745 2,745	469,000 469,000	37,520 37,520	146,000 146,000	1,460	36,060 36,060	1 160 1 160	5,568 5,568	160	96 96	
2026	263 220	70.698	85.420	2,074	68.624	3.365	16 152	1 490	894	13,230	2,828	83	2,745	469,000	37,520	146,000	<u>1,450</u> 1,460	36 060	1,160	5,568	100	90	

្រា			Caroo Tr	erminal Space	ce Rental		Conce	ssion Privile	e Fee	(*************************************	Aviati	on Fuel Sur	charge		0	lifties Servic	25	Traffic	Commercia	Miscella-	Total 1
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				Rent Sciace		Revenue			Revenue		Total Fee						Revenue	Services		Revenue	Revenue
		<u>(sa m)</u>	(000 PHP)	<u>(sq.m)</u>	(000 PHP)	(000 PHP)	(000 PHP)	(000 PHP)	(000 PHP)	<u>(KI)</u>	(1000 PHP)	(XL)	(000 FHP)	(000 PHP)	(000 PHP)	(000 PHP)	<u>(000 PHP)</u>	(000 PHP)	(000 PHP)	(000 PHP)	(000 PHP)
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		(24)	(25)	(26)	(27)	(20)-(23)-	(29)	(30)	(30)	(32)	(33)	(34)	(35)	(36)=(33}- (35)	(37)	(38)	(39)≏(37}- (38)		(41)=(23)+(2	(42)=(39)	(43)=(40)+(4 1)+(42)
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	2003 ·	.840	2,419		0	2,419	3,226	23	3,203	9,850	2,364	0	. 0	2,364	618	0	618	72,647	12,498	618	
· •	2004	840	2,419		0	2,419	3,226			10,657	2,558	0	0	2,558	618	0	618	77,909	12,691	618	91,218
	2005	840	2,419	0	0	2,419	3,226	23	3,203	11,463	2,751	0	0	2,751	618	0	618	83,236	12,885	618	96,739
1	2006	1,200	3,456	0	0	3 456	3,898	23	3,875	11,764	2,823	. 0	0	2,823	684	0	684	66,908	15,626	684	103,218
	2007	1,200	3,456		. 0	3 456	3,898	23	3,875	12,065	2,896	0	0	2,895	684	0	684	90,916	15,698	684	107,299
1	2008	1 200	3,456		. 0	3 456	3,898	23		12,366	2,968	· Û	0	2,968	684	0	684	95,144	15,771	684	\$11,599
1	2009	1,200	3,456	0	0	3 455	3,898	23		12,667	3,040	- 0	0	3,040	684	0]	684	99,296	15,843	684	115,823
L L	2010	1,200	3 456	0	. 0	3 456	3,898	23	3,875	12,969	3,112	0	0	3,112	684	0	684	103,898	15,915	684	120,498
1	2011	1,200	3,456	0	0	3 456	3,898	23		13,425	3,222	0	0	3,222	684	0	684	107,409	16,025	684	124,118
	2012	1,200	3,456	0	0	3,456	3,898	23	3,875	13,882	3,332	0	0	3,332	684	0	684	110,960	16,134	684	127,778
	2013	1,200	3 456	0	0	3 456	3,898	23		14,338	3,441	0	0	3,441	684	0	684	114,821	16,244	684	131,749
	2014	1,200	3 456	0	0	3,456	3,898	23	3,875	14,795	3,551	0	0	3,551	684	0	684	118,640	16,353	684	135,678
	2015	1,200	3,455	0	0	3,456	3,898	23	3,875	15 251	3,660	0	0	3,660	684	0	684	122,687	16,463	684	139,834
i	2016	1 200	3,456	<u> </u>	0	3,456	3,898	23		15.251	3,660	0	0	3,660	684	0	684	122,687	16,453	634	139,834
	2017	1,200	3,456	0	0	3,456	3,898	23	3,875	15,251	3,660	0	0	3,660	684	0	684	122,687	16,463		139,834
	2018	1,200	3,455	0	0	3,456	3,898	23	3,875	15,251	3,660	0	0	3,660	684	0	684	122,687	16,463		139,834
	2019	1,200	3,455	9	. 0	3,456	3,898		3,875	15,251	3,660	0	0	3,660	684	0	684	122,687	16,463		139,834
-	2020	1,200	3,456	0	0	3,456	3,898	23		15,251	3,660	0	0	3,660	684	0	684	122,687	16,463	684	139,834
	2021	1,200	3,455	l . ö	0	3,456	3,898	23	3,875	15 251	3,660	0	- O	3,660	684	0	684	122,687	16,463	684	139,834
	2022	1,200			0	3,456	3,898	23	3,875	15,251	3,660	0	0	3,660	684	0	684	122,687	16,453	684	139,834
	2023	1,200	3,456		0	3,456	3,898	23	3,875	15,251	3,660	0	0	3,660	684	0	684	122,687	16,463	684	139,834
1	2024	1,200	3,456		0	3,456	3,898	23		15,251	3,660	. 0	0	3,660	684	0	684	122,687	16,463	684	139,834
1	2025	1,200	3,456	ļ	0	3,456	3,899	23		15 251	3,660	0	ļ0	3,660	684	0	684	122,637	16,463	684	139,834
L.	2026	1,200	3,456	0	0	3,456	3,899	23	3,875	15,251	3,660	0	0	3,660	684	0	684	122,687	16,463	684	139,834

 Notes:
 The following prices of airport charges are used for calculation based on the present conditions. The above table assumes 300% increases in the prices of airport charges in 2001 when the new facilities are completed, and further 100% increases in 2006 when those facilities are expanded.

 a) Landing Charges:
 PHP 24 per ton of landing aircraft. MTOW of MJ, SJ and TP is assumed to be 165 tons, 58 tons and 21 tons respectively.

 b) Operational Charges:
 PHP 600 per landing.

 c) Parking Charges:
 Estimated as 4% of the total landing charges based on the past financial records.

 d) Passenger Service Charges:
 PHP 10 per departing passenger.

 e) Passenger Terminal Space Rent:
 PHP 30 per sq m per month.

 g) Concession Fee:
 Estimated as 10% of the space rent revenues of the passenger terminal building tased on the past financial records.

 h) Aviation Fuel Surcharge:
 PHP 30 per sq m per month.

 g) Utility Charges:
 Estimated as 110% of actual anticipated cost.

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