社会開発協力部報告書

THE FEASIBILITY STUDY REPORT
ON
KALIMANTAN-SULAWESI SUBMARINE CABLE SYSTEM
IN
THE REPUBLIC OF INDONESIA
(PHASE 1 STUDY)

VOLUME II

MARCH, 1988

JAPAN INTERNATIONAL COOPERATION AGENCY

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ANNEX I

SCOPE OF WORK
FOR
THE FEASIBILITY STUDY
ON
KALIMANTAN - SULAWESI SUBMARINE CABLE SYSTEM
IN
THE REPUBLIC OF INDONESIA

AGREED UPON BETWEEN
DIRECTORATE GENERAL OF POSTS AND TELECOMMUNICATIONS,
DEPARTMENT OF TOURISM, POSTS AND TELECOMMUNICATIONS
OF THE REPUBLIC OF INDONESIA
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

Jakarta, 17 March 1967

Ir. ROLLIN
Deputy Director General
Directorate General of
Posts and Telecommunications,
Department of Tourism,
Posts and Telecommunications

浅見春雄

Haruo AZAMI
Leader of the Japanese
Preliminary Study Team,
Japan International
Cooperation Agency

I. INTRODUCTION

In response to the request of the Government of the Republic of Indonesia, the Government of Japan decided to implement the Feasibility Study on Kalimantan - Sulawesi Submarine Cable System (hereinafter referred to as "the Study"), in accordance with the relevant laws and regulations in force in Japan.

Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the Government of Japan, will undertake the Study, in close cooperation with the Directorate General of Posts and Telecommunications (hereinafter referred to as "POSTEL") and the authorities concerned of the Government of the Republic of Indonesia.

The present document sets forth the Scope of Work with regard to the Study.

II. OBJECTIVE OF THE STUDY

To confirm the technical and economic feasibility of Kalimantan - Sulawesi Submarine Cable System.

III. OUTLINE OF THE STUDY

1. Study area

Kalimantan and Slawesi and the area along the possible telecommunication route between them.

2. Scope of the Study

The study is devided into two phases, and each of the phases will consist of field work in Indonesia and analysis partly in Indonesia and partly in Japan.

(1) Items to be coverd by the phase-1 study are as follows:

a) Collection and review of data/information relevant to the Study
b) Traffic forecast and circuits requirement between Kalimantan and Sulawesi up to the year 2019
c) Selection of cable landing points
d) Selection of ocean cable route using bathymetric chart, etc.
e) Basic design of submarine cable system
f) Selection of the route of backhaul system
g) Basic design of backhaul system
h) Cost estimation
i) Financial and economic analysis
j) Implementation schedule

(2) Items to be coverd by the phase-2 study are as follows:

a) Ocean route survey using survey vessel(s) based on the result of the phase-1 study
b) Review of the results of the phase-1 study, if necessary

IV. SCHEDULE OF STUDY

The Study shall be undertaken in accordance with the schedule of the Study. (refer to the Annex)

V. REPORTS

JICA shall prepare and submit the following reports in English to the Government of the Republic of Indonesia;

1. Phase-1 study

(1) Inception Report
- 20 copies
- at the beginning of the phase-1 first work in Indonesia

(2) Interim Report
- 20 copies
- at the end of the phase-1 first work in Indonesia

(3) Draft Final Report
- 20 copies
- at the end of the phase-1 second work in Japan
- by the end of the stay of the Study Team for the explanation in Indonesia, the Government of the Republic of Indonesia will provide JICA with its comments on the Draft Final Report

(4) Final Report
- 40 copies
- within two months after the receipt of the comments on the Draft Final Report

2. Phase-2 study

(1) Inception Report
- 20 copies
- at the beginning of the phase-2 work in Indonesia

(2) Progress Report
- 20 copies
- at the end of the phase-2 work in Indonesia

(3) Final Report
- 40 copies
- at the end of the phase-2 second work in Japan

II. UNDERTAKING OF THE GOVERNMENT OF THE REPUBLIC OF INDONESIA

1. To facilitate smooth conduct of the Study, the Government of the Republic of Indonesia shall take necessary measures;

   (1) to secure the safety of the Study team,

   (2) to permit the members of the Japanese Study Team (hereinafter referred to as "the Team") to enter, leave and sojourn in Indonesia for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees,

   (3) to exempt the members of the Team from taxes, duties and any other charges on equipment, machinery and other materials brought by the Team into Indonesia for the conduct of the Study,

   (4) to exempt the members of the Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowance paid to the members of the Team for their services in connection with the implementation of the Study,

   (5) to provide necessary facilities to the Team for remittance as well as the utilization of the funds introduced into Indonesia from Japan in connection with the implementation of the Study,

   (6) to secure permission for entry into private properties for the conduct of the Study,

   (7) to secure permission for the survey vessel(s) to enter the Indonesian territory waters,

   (8) to secure permission for the Team to take all data and documents including photographs, for the sole purpose of the Study out of Indonesia to Japan,

   (9) to provide medical services as needed, its expenses will be chargeable on the members of the Team.

2. The Government of the Republic of Indonesia shall bear claims, if any arises against the members of the Team resulting from, occuring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part

of the members of the Team.

3. POSTEL shall act as counterpart agency to the Team and also coordinating body in relation with other governmental and nongovernmental organizations concerned for the smooth implementation of the Study.

4. POSTEL shall, at its own expense, provide the Team during the Study period with the followings, in cooperation with other relevant organizations ;

(1) available data and information related to the Study,
(2) counterpart personnel,
(3) suitable office space with necessary equipment in Indonesia,
(4) credentials or identification cards,
(5) security clearance for the survey vessel(s).

VII. UNDERTAKING OF JICA

For the implementation of the Study, JICA shall take the following measures ;

(1) to dispatch, at its own expense, the Team and the Japanese vessel(s) to Indonesia,

(2) to pursue technology transfer to the Indonesian counterpart personnel in the course of the Study.

VIII. CONSULTATION

JICA and POSTEL shall consult each other in respect of any matter which is not agreed upon in this document and may arise from or in connection with the Study.

The Schedule of the Study (Tentative)

PHASE-1 STUDY

MONTH	1	2	3	4	5	6	7	8	9
WORK IN INDONESIA		═══	═══	═══			═		
WORK IN JAPAN	═				═══	═══		═══	
REPORT PRESENTATION	△ IC/R				△ IT/R		△ DF/R		△ F/R

PHASE-2 STUDY

MONTH	1	2	3	4	5	6	7	8	9
WORK IN INDONESIA		═══	═══						
WORK IN JAPAN	═══			═══	═══				
REPORT PRESENTATION	△ IC/R		△ P/R			△ F/R			

Note 1. IC/R: Inception Report, P/R: Progress Report, IT/R: Interim Report
DF/R: Draft Final Report, F/R: Final Report

Note 2. Commencement of the phase-2 study is subject to the acquisition of SECURITY CLEARANCE by Indonesian side.

MINUTES OF MEETINGS

MINUTES OF MEETINGS
ON
SCOPE OF WORK FOR THE FEASIBILITY STUDY
ON
KALIMANTAN-SULAWESI SUBMARINE CABLE SYSTEM
IN
THE REPUBLIC OF INDONESIA

The Government of Japan has dispatched the Preliminary Study Team (hereinafter referred to as "the Team") to the Republic of Indonesia in order to discuss the Scope of Work for the Feasibility Study on Kalimantan-Sulawesi Submarine Cable System.

Directorate General of Posts and Telecommunications (POSTEL) and the Team held meetings at the conference room of POSTEL, Jakarta on 9th, 16th and 17th of March 1987.

1. Ir. ROLLIN, Deputy Director General of POSTEL, expressed his gratitude to the members of the Team who were sent to Indonesia in response to the request of the Government of Indonesia.

2. Mr. Haruo AZAMI, leader of the Team, appreciated the cooperation extended by the Government of Indonesia to the Team.

3. POSTEL and the Team discussed and agreed upon the Scope of Work.

4. POSTEL and the Team confirmed the following items concerning the Scope of Work.

(1) JICA shall study on all the routes between Kalimantan and Sulawesi

including Balikpapan-Palu.

(2) In Draft Final Report, Phase-1 Study Team shall recommend final ocean survey route. After POSTEL approve of this route, JICA will commence preparatory work for Phase-2 Study (ocean survey).

(3) POSTEL shall inform JICA of the acquisition of SECURITY CLEARANCE, in writing, within 3(three) months after JICA's notification of necessary information.

(4) As for equipment, machinery and other materials mentioned in chapter VI, 1, (3) of the Scope of Work, JICA Study Team shall take home all of them after the Study.

5. POSTEL strongly requested for the training of a few persons from PERUMTEL /POSTEL in Japan at Japanese expense.
The Team promised to convey the request to the authorities concerned in Japan.

Jakarta; 17 March 1987

Ir. ROLLIN

Deputy Director General
Directorate General of
Posts and Telecommunications

浅見春雄

Haruo AZAMI

Leader of the Japanese
Preliminary Study Team

ATTENDANTS LIST

Indonesian Side :

1. POSTEL

Ir. Rollin	Deputy Director General
Mr. R.I. Soemardi Bc.T.T.	Director of Planning
Mr. Soetarto	Finance
Ir. Koesmarihati Sugondo	Planning
Mr. Soedarpo Bc.T.T.	Engineering
Mr. Kicky A.M.	Planning
Mr. Musnaldy	ditto
Mr. Samlawi Bc.T.T.	ditto

2. Department of Tourism, Posts and Telecommunications

Mr. Soetomo	Planning Division
Mr. Rai Sardjana Bc.T.T.	ditto
Ir. Syahrul Sinulingga	ditto

3. PERUMTEL

Mr. Kisworo Bc.T.T.	Director of WITEL IX
Mr. Suharto	Planning division, WITEL X

Japanese side :

1. Preliminary Study Team

Mr. Haruo Azami	Leader of the Preliminary Study Team
Mr. Koji Noguchi	Member
Mr. Keiichi Kusakawa	Member
Mr. Shigeo Yamamoto	Member
Mr. Ryutaro Totsuka	Member

2. Embassy of Japan

Mr. Noboru Yoshida

ANNEX II
TRAFFIC MATRIX BETWEEN SC's

Distributed Outgoing Traffic from Si to Sj (1994) [1/2]

Xeij	JKT(21)	BD (22)	CBN(23)	SH (24)	YK (27)	PWT(28)	SB (31)	JR (33)	ML (34)	MN (35)	DPR(36)	SBW(37)	END(38)	KP (39)	UP (41)	PRE(42)	MO (43)	PAL(45)	KDI(40)	BJM(51)	SPT(53)
JKT(21)	0	489.56	63.72	181.58	151.41	153.56	195.44	82.41	99.84	103.21	94.88	9.24	28.95	44.77	71.39	36.03	43.20	38.98	28.76	76.08	34.49
BD (22)	447.78	0	17.96	36.07	30.39	36.65	33.34	13.53	17.14	18.88	14.84	1.37	4.01	6.05	10.12	5.06	5.60	5.33	3.89	11.49	5.25
CBN(23)	51.93	16.00	0	7.29	5.79	8.25	5.85	2.30	2.98	3.43	2.46	0.22	0.64	0.96	1.64	0.82	0.89	0.86	0.62	1.91	0.88
SH (24)	159.49	34.63	7.86	0	48.57	30.44	38.69	13.57	19.28	27.62	13.45	1.16	3.15	4.65	8.20	4.05	4.17	4.13	3.02	9.86	4.37
YK (27)	130.67	28.68	6.14	47.72	0	26.75	31.75	11.79	17.31	25.03	11.61	0.99	2.67	3.95	6.60	3.35	3.46	3.36	2.51	7.76	3.36
PWT(28)	129.89	33.89	8.56	29.31	26.22	0	20.38	7.92	10.60	12.93	8.26	0.73	2.06	3.07	5.23	2.59	2.76	2.67	1.97	6.00	2.68
SB (31)	178.38	33.27	6.55	40.20	33.57	21.99	0	37.44	61.79	39.95	28.81	2.19	5.33	7.63	14.27	6.91	6.55	6.67	4.96	16.85	6.68
JR (33)	68.78	12.35	2.35	12.90	11.40	7.81	34.24	0	20.49	11.52	18.22	1.11	2.46	3.48	6.36	3.02	2.80	2.82	2.18	6.50	2.68
ML (34)	84.36	15.83	3.09	18.55	16.75	10.59	57.20	20.74	0	20.30	14.37	1.05	2.54	3.65	6.57	3.16	3.05	3.05	2.31	7.21	2.87
MN (35)	86.42	17.28	3.52	26.33	24.28	12.79	36.65	11.56	20.11	0	10.28	0.83	2.14	3.13	5.55	2.71	2.70	2.69	2.00	6.41	2.69
DPR(36)	81.47	13.93	2.59	13.15	11.56	8.38	27.10	18.75	14.60	10.56	0	2.09	3.75	5.14	9.38	4.32	3.83	3.84	3.10	8.09	2.98
SBW(37)	7.10	1.15	0.21	1.02	0.88	0.67	1.84	1.02	0.95	0.76	1.87	0	0.49	0.61	1.15	0.50	0.41	0.41	0.36	0.74	0.27
END(38)	22.39	3.39	0.61	2.77	2.39	1.88	4.51	2.28	2.32	1.98	3.37	0.49	0	4.52	4.00	1.80	1.70	1.51	1.66	2.09	0.78
KP (39)	36.72	5.42	0.97	4.34	3.75	2.98	6.86	3.42	3.55	3.06	4.91	0.65	4.79	0	5.33	2.53	2.82	2.31	2.49	3.14	1.19
UP (41)	60.66	9.40	1.71	7.94	6.70	5.25	13.29	6.48	6.60	5.64	9.28	1.27	4.39	5.52	0	12.59	4.91	5.78	5.33	7.53	2.58
PRE(42)	28.33	4.35	0.79	3.63	3.05	2.41	5.95	2.84	2.95	2.55	3.95	0.51	1.83	2.42	11.65	0	2.54	3.38	2.77	3.60	1.24
MO (43)	35.54	5.03	0.89	3.91	3.30	2.69	5.91	2.76	2.97	2.66	3.67	0.44	1.80	2.83	4.76	2.65	0	3.68	2.89	3.28	1.28
PAL(45)	31.09	4.65	0.84	3.75	3.12	2.52	5.82	2.69	2.88	2.56	3.57	0.42	1.55	2.24	5.43	3.43	3.57	0	2.54	3.76	1.38
KDI(40)	22.30	3.30	0.59	2.66	2.26	1.80	4.22	2.02	2.12	1.85	2.80	0.36	1.67	2.35	4.87	2.73	2.72	2.47	0	2.31	0.85
BJM(51)	63.48	10.48	1.96	9.36	7.50	5.92	15.40	6.50	7.12	6.39	7.86	0.80	2.25	3.19	7.40	3.82	3.32	3.94	2.49	0	5.43
SPT(53)	26.02	4.33	0.81	3.75	2.94	2.39	5.53	2.24	2.57	2.42	2.62	0.26	0.76	1.10	2.29	1.19	1.17	1.30	0.83	4.91	0
SHR(54)	51.94	7.96	1.44	6.47	5.32	4.31	9.95	4.46	4.84	4.36	5.73	0.64	2.13	3.08	7.28	4.22	4.15	6.48	2.84	7.64	2.80
TAR(55)	11.52	1.70	0.30	1.32	1.09	0.90	1.95	0.87	0.96	0.88	1.11	0.12	0.44	0.65	1.31	0.74	1.03	1.17	0.58	1.26	0.52
PTK(56)	46.44	7.31	1.30	5.19	4.15	3.62	6.63	2.77	3.23	3.17	3.26	0.33	1.03	1.55	2.82	1.47	1.72	1.71	1.12	3.63	1.92
MOR(61)	172.81	24.45	4.09	15.63	13.13	11.58	20.02	8.80	10.14	9.79	10.67	1.10	3.66	5.73	9.11	4.70	6.17	5.39	3.84	9.32	4.22
SBG(63)	20.55	2.94	0.49	1.84	1.55	1.38	2.34	1.02	1.19	1.15	1.24	0.13	0.42	0.65	1.04	0.53	0.69	0.61	0.44	1.07	0.48
LSH(64)	31.37	4.36	0.73	2.83	2.38	2.09	3.66	1.62	1.86	1.78	1.97	0.20	0.69	1.08	1.70	0.88	1.17	1.01	0.72	1.71	0.77
BNA(65)	28.33	3.89	0.65	2.53	2.14	1.87	3.29	1.46	1.67	1.60	1.79	0.19	0.63	0.99	1.54	0.79	1.07	0.91	0.66	1.53	0.68
PG (71)	115.90	17.63	2.84	9.76	8.03	7.51	11.34	4.78	5.71	5.75	5.56	0.55	1.71	2.62	4.37	2.23	2.65	2.48	1.75	4.93	2.34
TJK(72)	154.43	22.79	3.31	10.25	8.54	8.43	11.20	4.69	5.70	5.89	5.37	0.52	1.58	2.42	3.99	2.01	2.34	2.18	1.58	4.44	2.06
LT (73)	68.74	10.44	1.64	5.64	4.70	4.41	6.58	2.80	3.34	3.35	3.27	0.32	1.01	1.56	2.55	1.30	1.56	1.43	1.03	2.79	1.30
JB (74)	45.66	6.86	1.12	4.04	3.35	3.06	4.87	2.08	2.45	2.43	2.45	0.24	0.78	1.20	1.98	1.02	1.24	1.14	0.81	2.19	1.03
PD (75)	59.64	8.74	1.43	5.30	4.45	4.00	6.57	2.86	3.33	3.26	3.42	0.35	1.13	1.75	2.81	1.44	1.82	1.62	1.16	2.95	1.35
PBR(76)	45.51	6.68	1.10	4.08	3.41	3.07	5.07	2.20	2.56	2.51	2.62	0.27	0.86	1.34	2.17	1.11	1.41	1.27	0.90	2.31	1.07
SKN(77)	40.24	5.99	1.00	3.74	3.08	2.77	4.63	1.99	2.32	2.28	2.37	0.24	0.77	1.19	1.98	1.02	1.27	1.17	0.81	2.18	1.03
AB (91)	22.88	3.21	0.57	2.49	2.13	1.72	3.80	1.81	1.93	1.71	2.46	0.30	1.41	2.42	5.03	1.59	3.14	1.77	1.89	1.94	0.75
TT (92)	12.97	1.81	0.32	1.40	1.18	0.96	2.10	0.99	1.06	0.95	1.32	0.16	0.68	1.10	1.64	0.89	2.98	1.11	0.99	1.12	0.44
SOU(95)	11.45	1.56	0.28	1.19	1.01	0.83	1.78	0.84	0.90	0.81	1.12	0.13	0.58	0.98	1.29	0.68	1.52	0.80	0.73	0.91	0.36
JAP(96)	15.34	1.99	0.35	1.49	1.27	1.04	2.18	1.03	1.11	1.01	1.36	0.16	0.66	1.15	1.42	0.73	1.30	0.84	0.72	1.06	0.43
MRK(97)	6.29	0.82	0.14	0.61	0.53	0.43	0.90	0.43	0.46	0.42	0.57	0.07	0.28	0.50	0.58	0.30	0.49	0.33	0.29	0.43	0.17
TOTAL	2,714.81	888.05	154.82	542.03	467.27	409.70	658.83	299.76	372.73	356.38	318.74	32.20	97.68	143.22	245.00	130.91	139.89	132.62	99.54	242.93	107.45

Distributed Outgoing Traffic from Si to Sj (1994) [2/2]

Xe1]	SMR(54)	TAR(55)	PTK(56)	MDN(61)	SBG(63)	LSM(64)	BNA(65)	PG (71)	TJK(72)	LT (73)	JB (74)	PD (75)	PBR(76)	SKN(77)	AB (91)	TT (92)	SON(95)	JAP(96)	MRK(97)	TOTAL
JKT(21)	62.35	16.03	58.19	191.78	27.29	39.25	35.62	136.15	183.75	84.95	57.86	71.92	56.56	50.93	28.95	17.48	15.43	19.72	8.89	3,190.52
BD (22)	8.74	2.16	8.38	24.82	3.57	4.99	4.48	18.94	24.80	11.80	7.96	9.64	7.59	6.93	3.71	2.22	1.92	2.34	1.06	880.88
CBN(23)	1.41	0.34	1.33	3.69	0.53	0.75	0.67	2.72	3.21	1.65	1.16	1.41	1.12	1.03	0.59	0.35	0.30	0.36	0.17	138.51
SM (24)	6.82	1.61	5.72	15.23	2.15	3.10	2.80	10.07	10.71	6.12	4.50	5.61	4.46	4.15	2.77	1.65	1.41	1.68	0.76	531.68
YK (27)	5.51	1.31	4.48	12.58	1.78	2.57	2.32	8.14	8.77	5.02	3.66	4.63	3.66	3.37	2.32	1.37	1.18	1.41	0.64	450.20
PWT(28)	4.37	1.06	3.84	10.87	1.55	2.21	1.99	7.47	8.48	4.61	3.28	4.08	3.22	2.96	1.84	1.09	0.96	1.14	0.52	383.24
SB (31)	10.90	2.47	7.59	20.28	2.83	4.18	3.78	12.16	12.16	7.42	5.63	7.23	5.75	5.35	4.38	2.57	2.19	2.56	1.16	680.58
JR (33)	4.47	1.01	2.90	8.15	1.14	1.69	1.53	4.69	4.66	2.89	2.20	2.88	2.28	2.10	1.91	1.11	0.94	1.10	0.51	281.43
ML (34)	4.91	1.13	3.42	9.51	1.33	1.96	1.78	5.66	5.73	3.49	2.62	3.40	2.69	2.49	2.06	1.20	1.03	1.21	0.55	355.41
MI (35)	4.38	1.02	3.32	9.10	1.28	1.87	1.69	5.66	5.86	3.47	2.58	3.30	2.61	2.42	1.81	1.07	0.91	1.08	0.49	333.99
DPR(36)	5.90	1.33	3.51	10.17	1.41	2.12	1.93	5.61	5.48	3.48	2.67	3.54	2.80	2.57	2.67	1.52	1.30	1.50	0.69	308.79
SBW(37)	0.59	0.13	0.32	0.94	0.13	0.20	0.18	0.49	0.47	0.31	0.24	0.32	0.25	0.23	0.29	0.16	0.14	0.16	0.07	28.03
END(38)	1.98	0.47	1.00	3.14	0.43	0.67	0.61	1.55	1.46	0.97	0.76	1.05	0.83	0.75	1.38	0.70	0.60	0.66	0.31	85.76
KP (39)	3.04	0.74	1.59	5.21	0.71	1.11	1.02	2.52	2.36	1.58	1.24	1.73	1.36	1.23	2.51	1.21	1.09	1.21	0.58	133.27
UP (41)	7.43	1.55	3.01	8.59	1.17	1.81	1.65	4.36	4.03	2.68	2.14	2.88	2.29	2.13	3.26	1.87	1.48	1.55	0.70	237.43
PRE(42)	3.98	0.80	1.45	4.10	0.56	0.86	0.79	2.06	1.88	1.26	1.01	1.36	1.09	1.02	1.59	0.94	0.72	0.74	0.33	117.28
MO (43)	4.10	1.18	1.77	5.63	0.76	1.21	1.10	2.57	2.29	1.59	1.29	1.80	1.44	1.33	3.27	3.29	1.68	1.38	0.57	131.19
PAL(45)	6.20	1.30	1.71	4.77	0.64	1.01	0.92	2.32	2.07	1.41	1.15	1.56	1.25	1.18	1.79	1.19	0.86	0.86	0.37	120.37
KDI(49)	2.65	0.63	1.09	3.31	0.45	0.70	0.64	1.59	1.45	0.98	0.79	1.09	0.86	0.80	1.86	1.03	0.76	0.72	0.32	87.97
BJM(51)	7.65	1.47	3.79	8.63	1.18	1.78	1.61	4.83	4.41	2.88	2.31	2.97	2.39	2.31	2.05	1.25	1.02	1.14	0.51	228.79
SPT(53)	2.53	0.54	1.81	3.53	0.49	0.72	0.65	2.07	1.85	1.21	0.98	1.23	1.00	0.98	0.72	0.44	0.37	0.41	0.18	91.14
SMR(54)	0	2.40	3.19	7.97	1.08	1.67	1.51	4.01	3.55	2.41	1.99	2.63	2.13	2.04	2.26	1.47	1.13	1.20	0.52	191.20
TAR(55)	2.07	0	0.72	1.92	0.26	0.41	0.37	0.91	0.78	0.55	0.46	0.62	0.50	0.48	0.52	0.36	0.27	0.29	0.12	42.03
PTK(56)	3.05	0.80	0	7.57	1.04	1.51	1.32	4.71	3.64	2.58	2.31	2.66	2.25	2.48	1.05	0.66	0.56	0.65	0.29	143.50
MDN(61)	8.62	2.41	8.55	0	17.48	25.91	16.87	17.87	13.71	11.70	10.92	22.90	17.78	12.16	3.96	2.46	2.17	2.73	1.21	555.76
SBG(63)	0.97	0.27	0.98	14.61	0	1.99	1.56	2.22	1.69	1.49	1.39	3.59	2.51	1.46	0.45	0.28	0.24	0.31	0.14	77.90
LSM(64)	1.60	0.45	1.52	22.98	2.12	0	5.53	3.02	2.39	1.98	1.78	3.43	2.64	1.95	0.75	0.47	0.41	0.53	0.23	118.36
BNA(65)	1.44	0.41	1.32	14.89	1.64	5.50	0	2.62	2.11	1.72	1.51	2.86	2.16	1.62	0.69	0.43	0.38	0.49	0.21	100.21
PG (71)	4.10	1.07	5.02	16.88	2.51	3.22	2.80	0	13.38	13.84	9.74	7.58	6.33	6.16	1.71	1.05	0.91	1.11	0.50	318.35
TJK(72)	3.58	0.92	3.83	12.79	1.89	2.51	2.23	13.21	0	8.85	4.85	5.41	4.25	3.80	1.54	0.93	0.81	0.99	0.45	336.56
LT (73)	2.35	0.62	2.62	10.51	1.61	2.00	1.75	13.16	8.53	0	5.18	5.07	3.99	3.32	1.02	0.62	0.54	0.67	0.30	195.62
JB (74)	1.88	0.50	2.29	9.56	1.46	1.76	1.50	9.03	4.55	5.06	0	4.72	4.34	4.26	0.80	0.49	0.43	0.52	0.23	143.38
PD (75)	2.62	0.71	2.77	21.07	3.95	3.56	2.98	7.38	5.34	5.19	4.96	0	11.03	4.53	1.18	0.73	0.64	0.80	0.35	199.17
PBR(76)	2.06	0.56	2.27	15.88	2.68	2.66	2.19	5.98	4.07	3.96	4.42	10.71	0	4.45	0.91	0.56	0.49	0.61	0.27	156.25
SKN(77)	1.93	0.53	2.45	10.66	1.53	1.93	1.61	5.72	3.57	3.25	4.26	4.32	4.37	0	0.81	0.50	0.43	0.53	0.23	130.70
AB (91)	2.15	0.57	1.04	3.48	0.47	0.75	0.69	1.59	1.44	0.99	0.80	1.12	0.89	0.81	0	1.71	1.57	1.11	0.48	84.61
TT (92)	1.32	0.37	0.62	2.04	0.27	0.44	0.40	0.92	0.82	0.57	0.46	0.65	0.52	0.47	1.62	0	0.92	0.60	0.24	49.42
SON(95)	1.01	0.28	0.52	1.78	0.24	0.38	0.36	0.79	0.71	0.49	0.40	0.57	0.45	0.41	1.47	0.91	0	0.73	0.28	41.53
JAP(96)	1.12	0.31	0.64	2.36	0.32	0.51	0.48	1.01	0.92	0.64	0.52	0.75	0.59	0.52	1.09	0.63	0.76	0	0.71	50.52
MRK(97)	0.44	0.12	0.26	0.95	0.13	0.21	0.19	0.41	0.38	0.26	0.21	0.30	0.24	0.21	0.43	0.23	0.27	0.64	0	20.92
TOTAL	202.22	51.58	168.83	541.93	92.06	131.68	112.10	336.19	367.66	215.30	162.19	213.52	172.47	147.39	93.99	58.12	49.28	57.64	26.14	11,746

Distributed Outgoing Traffic from Si to Sj (1999) [1/2]

Xeij	JKT(21)	BD (22)	CBN(23)	SM (24)	YK (27)	PWT(28)	SB (31)	JR (33)	ML (34)	MN (35)	DPR(36)	SBW(37)	END(38)	KP (39)	UP (41)	PRE(42)	MD (43)	PAL(45)	KDI(40)	BJM(51)	SPT(53)
JKT(21)	0	729.13	99.70	281.24	237.35	233.18	306.91	128.08	151.92	155.48	143.50	14.33	41.05	71.06	113.06	55.06	69.26	60.69	65.54	117.84	55.42
BD (22)	670.32	0	29.52	58.67	50.05	58.45	54.99	22.09	27.39	29.88	23.57	2.23	5.97	10.09	16.84	8.13	9.43	8.72	6.48	18.69	8.86
CBN(23)	82.13	26.45	0	12.53	10.08	13.90	10.19	3.96	5.03	5.73	4.13	0.38	1.01	1.69	2.88	1.39	1.58	1.48	1.09	3.29	1.56
SM (24)	249.42	56.60	13.49	0	83.55	50.72	66.66	23.15	32.19	45.66	22.33	1.97	4.90	8.09	14.26	6.80	7.35	7.05	5.24	16.75	7.70
YK (27)	207.12	47.50	10.68	82.21	0	45.18	55.44	20.38	28.95	41.93	19.54	1.70	4.21	6.97	11.98	5.69	6.17	5.85	4.42	13.36	6.81
PWT(28)	198.69	54.17	14.38	48.73	44.11	0	34.34	13.21	17.32	20.90	13.41	1.22	3.13	5.23	8.89	4.25	4.75	4.46	3.34	9.98	4.63
SB (31)	283.27	55.21	11.41	69.38	58.64	37.20	0	64.84	104.76	67.06	48.55	3.78	8.41	13.50	25.18	11.76	11.71	11.56	8.75	29.08	11.97
JR (33)	107.98	20.26	4.06	22.80	19.69	13.87	59.23	0	34.34	19.12	30.36	1.89	3.84	6.09	11.10	5.08	4.94	4.83	3.80	11.10	4.39
ML (34)	129.34	25.37	5.20	30.91	28.25	17.31	96.63	34.68	0	32.90	23.38	1.75	3.87	6.24	11.19	5.20	5.25	5.10	3.93	12.92	4.97
MN (35)	131.03	27.39	5.86	43.39	40.50	20.67	61.23	19.11	32.56	0	16.54	1.37	3.23	5.28	9.36	4.41	4.61	4.45	3.37	10.56	4.60
DPR(36)	124.08	22.17	4.33	21.77	19.36	13.60	45.48	31.13	23.74	16.98	0	3.46	5.68	8.72	15.88	7.05	6.57	6.39	5.25	13.39	5.12
SBW(37)	11.13	1.89	0.36	1.73	1.52	1.11	3.18	1.74	1.60	1.26	3.11	0	0.76	1.06	2.00	0.84	0.72	0.70	0.62	1.26	0.47
END(38)	31.73	5.02	0.95	4.27	3.73	2.84	7.05	3.52	3.51	2.97	5.07	0.75	0	7.13	6.30	2.74	2.70	2.33	2.61	3.21	1.24
KP (39)	59.01	9.11	1.71	7.58	6.63	5.10	12.15	5.99	6.08	5.20	8.37	1.14	7.66	0	9.52	4.36	5.10	4.05	4.44	5.48	2.16
UP (41)	97.25	15.75	3.01	13.83	11.81	8.97	23.47	11.32	11.30	9.55	15.80	2.21	7.01	9.86	0	21.64	8.86	10.13	9.49	13.12	4.66
PRE(42)	43.65	7.01	1.34	6.07	5.17	3.96	10.10	4.78	4.84	4.14	6.46	0.85	2.81	4.16	19.95	0	4.40	5.69	4.74	6.03	2.15
MD (43)	57.78	8.55	1.60	6.91	5.90	4.65	10.58	4.89	5.15	4.56	6.34	0.77	2.92	5.12	8.59	4.62	0	6.54	5.21	5.79	2.34
PAL(45)	48.90	7.65	1.45	6.40	5.41	4.22	10.10	4.62	4.83	4.25	5.96	0.72	2.43	3.93	9.49	5.78	6.32	0	4.44	6.43	2.45
KDI(40)	35.76	5.53	1.04	4.64	3.98	3.08	7.45	3.54	3.63	3.14	4.77	0.63	2.66	4.20	8.67	4.69	4.91	4.33	0	4.03	1.54
BJM(51)	99.27	17.13	3.37	15.91	12.90	9.86	26.54	11.09	11.89	10.56	13.05	1.37	3.58	5.56	12.85	6.41	5.85	6.73	4.32	0	9.57
SPT(53)	42.40	7.37	1.45	6.64	5.27	4.15	9.92	3.99	4.46	4.17	4.53	0.46	1.23	1.99	4.15	2.07	2.15	2.32	1.50	8.69	0
SMR(54)	84.68	13.56	2.58	11.46	9.54	7.48	17.88	7.94	8.42	7.51	9.91	1.14	3.46	5.60	13.19	7.38	7.61	11.53	5.15	13.53	5.14
TAR(55)	16.96	2.61	0.49	2.11	1.77	1.41	3.16	1.40	1.51	1.36	1.74	0.20	0.64	1.07	2.14	1.16	1.71	1.89	0.95	2.02	0.86
PTK(56)	72.98	12.00	2.24	8.87	7.17	6.06	11.49	4.75	5.43	5.26	5.44	0.56	1.61	2.70	4.93	2.48	3.04	2.93	1.95	6.20	3.40
MDN(61)	274.81	40.63	7.13	27.00	22.97	19.62	35.08	15.26	17.22	16.46	18.01	1.90	5.79	10.14	16.11	8.01	11.04	9.37	6.79	16.10	7.56
SBG(63)	32.64	4.88	0.85	3.18	2.71	2.33	4.09	1.77	2.01	1.93	2.09	0.22	0.66	1.16	1.83	0.91	1.24	1.06	0.77	1.85	0.87
LSM(64)	45.32	6.58	1.16	4.44	3.78	3.21	5.82	2.55	2.86	2.72	3.02	0.32	0.99	1.74	2.73	1.36	1.90	1.60	1.16	2.68	1.25
BNA(65)	45.41	6.52	1.15	4.41	3.77	3.19	5.81	2.55	2.86	2.72	3.04	0.32	1.00	1.77	2.75	1.37	1.93	1.60	1.17	2.67	1.25
PG (71)	175.44	27.89	4.71	16.06	13.37	12.12	18.91	7.90	9.22	9.21	8.94	0.90	2.57	4.41	7.35	3.62	4.52	4.09	2.94	8.11	3.99
TJK(72)	227.31	35.05	5.34	16.39	13.83	13.22	18.16	7.54	8.95	9.16	8.39	0.83	2.32	3.96	6.52	3.18	3.87	3.51	2.58	7.11	3.43
LT (73)	108.87	17.27	2.85	9.70	8.20	7.44	11.48	4.84	5.64	5.62	5.50	0.56	1.60	2.75	4.49	2.20	2.78	2.48	1.81	4.81	2.32
JB (74)	72.46	11.38	1.96	6.97	5.84	5.17	8.51	3.60	4.15	4.08	4.13	0.42	1.23	2.12	3.50	1.73	2.22	1.98	1.42	3.77	1.84
PD (75)	91.33	13.98	2.41	8.81	7.49	6.52	11.09	4.78	5.45	5.29	5.56	0.58	1.72	2.99	4.78	2.36	3.13	2.72	1.98	4.91	2.33
PBR(76)	71.77	11.01	1.91	7.00	5.92	5.15	8.81	3.78	4.31	4.18	4.39	0.46	1.35	2.35	3.81	1.89	2.50	2.18	1.57	3.96	1.89
SKN(77)	64.28	10.00	1.76	6.49	5.42	4.71	8.16	3.46	3.96	3.85	4.01	0.42	1.22	2.11	3.52	1.75	2.29	2.04	1.44	3.79	1.86
AB (91)	36.70	5.38	1.00	4.35	3.75	2.94	6.71	3.17	3.30	2.90	4.18	0.52	2.25	4.32	5.41	2.74	5.67	3.10	3.37	3.38	1.36
TT (92)	20.15	2.94	0.55	2.36	2.02	1.59	3.60	1.67	1.76	1.56	2.18	0.27	1.04	1.90	2.82	1.48	5.22	1.88	1.71	1.89	0.77
SCH(95)	18.45	2.63	0.49	2.09	1.80	1.42	3.16	1.48	1.56	1.38	1.92	0.23	0.93	1.77	2.32	1.18	2.75	1.41	1.31	1.59	0.65
JAP(96)	24.19	3.27	0.60	2.55	2.21	1.76	3.79	1.77	1.88	1.68	2.28	0.27	1.04	2.02	2.49	1.24	2.31	1.44	1.27	1.82	0.76
MRK(97)	10.08	1.37	0.25	1.07	0.93	0.74	1.59	0.75	0.79	0.71	0.97	0.12	0.45	0.90	1.04	0.51	0.89	0.58	0.52	0.75	0.31
TOTAL	4,204.09	1,378.21	254.34	890.12	776.39	657.30	1,098.94	497.07	606.77	573.02	514.47	53.22	148.15	241.75	413.87	214.52	239.25	220.79	168.44	401.04	183.63

Distributed Outgoing Traffic from Si to Sj (1999) [2/2]

Xe(j)	SMR(54)	TAR(55)	PTK(56)	MDN(61)	SBG(63)	LSM(64)	BNA(65)	PG (71)	TJK(72)	LT (73)	JB (74)	PD (75)	PBR(76)	SKN(77)	AB (91)	TT (92)	SOI(95)	JAP(96)	MRK(97)	TOTAL
JKT(21)	100.24	23.52	90.52	301.52	42.85	56.62	56.41	204.81	269.56	133.09	90.80	109.34	88.27	80.40	45.86	26.79	24.56	30.78	14.06	4,899.80
BD (22)	14.75	3.33	13.69	40.98	5.89	7.56	7.45	29.93	38.22	19.41	13.11	15.39	12.45	11.50	6.18	3.59	3.21	3.83	1.76	1,372.60
CBN(23)	2.52	0.56	2.29	6.45	0.92	1.19	1.18	4.53	5.22	2.87	2.02	2.38	1.93	1.81	1.03	0.60	0.53	0.63	0.29	229.43
SM (24)	12.03	2.60	9.76	26.28	3.71	4.91	4.86	16.62	17.24	10.52	7.74	9.36	7.63	7.20	4.82	2.78	2.46	2.87	1.32	878.59
YK (27)	9.85	2.14	7.76	22.00	3.11	4.12	4.09	13.62	14.31	8.74	6.38	7.83	6.35	5.91	4.09	2.35	2.09	2.45	1.13	753.61
PWT(28)	7.55	1.67	6.41	18.35	2.61	3.42	3.38	12.05	13.36	7.74	5.52	6.65	5.40	5.02	3.13	1.81	1.61	1.90	0.88	617.60
SB (31)	19.53	4.04	13.15	35.52	4.96	6.71	6.66	20.38	19.88	12.95	9.84	12.25	9.99	9.42	7.74	4.41	3.88	4.45	2.05	1,143.83
JR (33)	7.92	1.64	4.96	14.11	1.96	2.68	2.67	7.77	7.53	4.99	3.80	4.82	3.92	3.65	3.34	1.88	1.66	1.90	0.88	469.25
ML (34)	8.49	1.78	5.73	16.09	2.25	3.04	3.03	9.17	9.04	5.87	4.43	5.56	4.52	4.22	3.52	1.99	1.76	2.03	0.94	576.95
MN (35)	7.49	1.59	5.50	15.22	2.14	2.87	2.84	9.06	9.15	5.79	4.31	5.33	4.34	4.06	3.06	1.75	1.55	1.80	0.83	538.20
DPR(36)	10.14	2.09	5.84	17.09	2.37	3.26	3.26	9.02	8.60	5.82	4.47	5.75	4.67	4.34	4.52	2.50	2.21	2.50	1.17	499.77
SBW(37)	1.05	0.21	0.54	1.62	0.22	0.31	0.31	0.82	0.76	0.53	0.41	0.54	0.44	0.40	0.51	0.27	0.24	0.27	0.12	46.63
END(38)	3.17	0.68	1.54	4.91	0.67	0.95	0.96	2.32	2.12	1.51	1.19	1.59	1.29	1.18	2.18	1.07	0.96	1.02	0.49	129.47
KP (39)	5.51	1.23	2.79	9.24	1.26	1.80	1.82	4.27	3.90	2.79	2.20	2.97	2.40	2.19	4.48	2.10	1.95	2.13	1.04	226.91
UP (41)	13.43	2.55	5.26	15.20	2.07	2.94	2.94	7.38	6.65	4.72	3.77	4.92	4.03	3.78	5.81	3.23	2.65	2.72	1.24	404.33
PRE(42)	6.92	1.28	2.43	6.96	0.95	1.35	1.34	3.35	2.99	2.14	1.72	2.24	1.84	1.73	2.72	1.56	1.25	1.25	0.57	192.89
MO (43)	7.52	1.98	3.15	10.10	1.35	1.98	2.00	4.40	3.83	2.83	2.32	3.13	2.56	2.39	5.91	5.78	3.06	2.45	1.03	226.58
PAL(45)	11.00	2.11	2.93	8.28	1.12	1.61	1.60	3.85	3.36	2.45	2.00	2.62	2.16	2.05	3.12	2.02	1.51	1.48	0.65	201.70
KDI(40)	4.79	1.03	1.90	5.85	0.79	1.14	1.14	2.70	2.40	1.74	1.40	1.86	1.52	1.42	3.31	1.78	1.37	1.27	0.57	150.20
BJM(51)	13.49	2.36	6.48	14.88	2.04	2.83	2.79	7.98	7.10	4.95	3.98	4.95	4.10	4.00	3.56	2.12	1.78	1.95	0.88	379.95
SPT(53)	4.66	0.91	3.23	6.35	0.87	1.20	1.17	3.56	3.11	2.17	1.76	2.13	1.78	1.78	1.30	0.78	0.66	0.74	0.33	157.48
SMR(54)	0	4.03	5.67	14.34	1.94	2.76	2.73	6.90	5.96	4.33	3.57	4.58	3.80	3.68	4.10	2.59	2.07	2.14	0.95	330.83
TAR(55)	3.44	0	1.16	3.12	0.42	0.61	0.60	1.41	1.19	0.88	0.74	0.97	0.81	0.78	0.85	0.57	0.45	0.47	0.20	65.83
PTK(56)	5.41	1.29	0	13.12	1.80	2.41	2.31	7.81	5.89	4.46	4.00	4.46	3.87	4.32	1.84	1.12	0.98	1.12	0.50	238.20
MDN(61)	15.47	3.94	14.83	0	30.64	41.70	29.81	30.00	22.45	20.46	19.11	38.84	30.96	21.42	7.01	4.23	3.85	4.76	2.13	928.61
SBG(63)	1.75	0.44	1.70	25.60	0	3.20	2.75	3.73	2.77	2.61	2.43	6.08	4.37	2.57	0.79	0.47	0.43	0.53	0.24	131.51
LSM(64)	2.61	0.67	2.39	36.62	3.37	0	8.87	4.61	3.55	3.14	2.85	5.29	4.17	3.12	1.21	0.73	0.67	0.83	0.37	182.24
BNA(65)	2.60	0.67	2.31	26.33	2.90	8.92	0	4.43	3.48	3.03	2.67	4.89	3.79	2.87	1.23	0.74	0.68	0.86	0.38	170.02
PG (71)	7.80	1.67	8.29	28.20	4.19	4.93	4.71	0	20.85	23.04	16.25	12.23	10.49	10.33	2.88	1.71	1.53	1.84	0.83	507.22
TJK(72)	5.94	1.39	6.16	20.77	3.06	3.74	3.65	20.52	0	14.33	7.86	8.49	6.85	6.19	2.51	1.48	1.33	1.60	0.73	517.25
LT (73)	4.19	1.00	4.53	18.36	2.80	3.21	3.08	22.00	13.90	0	9.04	8.56	6.91	5.83	1.79	1.06	0.95	1.16	0.52	322.10
JB (74)	3.37	0.82	3.96	16.74	2.54	2.82	2.65	15.12	7.44	8.82	0	7.99	7.53	7.48	1.61	0.84	0.75	0.91	0.41	240.08
PD (75)	4.53	1.12	4.62	35.60	6.67	5.52	5.08	11.93	8.41	8.74	8.37	0	18.50	7.69	2.01	1.20	1.09	1.34	0.60	323.23
PBR(76)	3.66	0.91	3.91	27.62	4.66	4.24	3.83	9.96	6.61	6.87	7.68	18.01	0	7.78	1.59	0.95	0.86	1.05	0.47	260.85
SKN(77)	3.49	0.87	4.28	18.79	2.70	3.12	2.85	9.64	5.87	5.70	7.50	7.36	7.65	0	1.43	0.87	0.77	0.93	0.42	220.78
AB (91)	3.88	0.95	1.83	6.15	0.83	1.21	1.22	2.69	2.39	1.75	1.41	1.92	1.56	1.44	0	2.97	2.81	1.95	0.86	144.32
TT (92)	2.30	0.60	1.05	3.49	0.47	0.69	0.69	1.51	1.32	0.97	0.79	1.08	0.88	0.81	2.79	0	1.59	1.02	0.42	81.83
SOI(95)	1.84	0.47	0.91	3.17	0.43	0.63	0.64	1.35	1.18	0.88	0.71	0.98	0.79	0.73	2.64	1.59	0	1.28	0.58	71.24
JAP(96)	1.99	0.51	1.10	4.11	0.55	0.82	0.84	1.69	1.49	1.11	0.90	1.26	1.01	0.91	1.92	1.07	1.34	0	1.24	84.50
MRK(97)	0.80	0.20	0.45	1.67	0.23	0.33	0.34	0.70	0.62	0.46	0.37	0.52	0.42	0.37	0.77	0.40	0.48	1.13	0	35.58
TOTAL	346.32	80.85	265.01	900.80	154.31	203.35	188.55	533.59	563.70	355.20	269.38	345.12	285.95	246.77	158.96	95.75	83.58	95.34	44.00	18,952

Distributed Outgoing Traffic from Si to Sj (2004) [1/2]

Xeij	JKT(21)	BD (22)	CBN(23)	SM (24)	YK (27)	PWT(28)	SB (31)	JR (33)	ML (34)	MN (35)	DPR(36)	SBU(37)	END(38)	KP (39)	UP (41)	PRE(42)	MD (43)	PAL(45)	KDI(40)	BJM(51)	SPT(53)
JKT(21)	0	1,002.77	140.30	393.92	334.23	323.73	432.50	179.66	211.14	214.74	198.89	20.06	54.70	100.63	159.82	76.65	98.46	85.33	64.41	164.94	79.08
BD (22)	924.48	0	42.68	84.43	72.40	83.37	79.62	31.84	39.11	42.39	33.56	3.21	8.18	14.67	24.45	11.62	13.77	12.60	9.41	26.88	12.99
CBN(23)	116.22	38.34	0	18.50	14.96	20.35	15.13	5.86	7.37	8.34	6.03	0.57	1.42	2.53	4.30	2.04	2.36	2.19	1.63	4.86	2.35
SM (24)	351.08	81.62	19.90	0	123.36	73.86	98.51	34.04	46.92	66.13	32.45	2.90	6.85	12.02	21.13	9.92	10.95	10.39	7.77	24.59	11.52
YK (27)	293.28	68.91	15.85	121.46	0	66.16	82.42	30.16	42.44	61.09	28.56	2.52	5.92	10.41	17.87	8.35	9.26	8.68	6.60	19.73	9.04
PWT(28)	276.92	77.36	21.01	70.87	64.49	0	50.25	19.23	24.99	29.97	19.29	1.77	4.33	7.69	13.04	6.15	7.02	6.52	4.91	14.50	6.85
SB (31)	401.45	80.16	16.96	102.59	87.18	54.52	0	96.02	153.71	97.79	71.04	5.59	11.84	20.18	37.58	17.28	17.57	17.16	13.07	42.98	18.03
JR (33)	152.24	29.26	6.00	32.37	29.13	19.05	87.66	0	50.13	27.74	44.19	2.78	5.38	9.05	16.48	7.43	7.38	7.14	5.64	16.52	6.58
ML (34)	180.48	36.26	7.61	45.00	41.35	24.97	141.55	50.57	0	47.23	33.68	2.55	5.36	9.18	16.44	7.53	7.76	7.46	5.78	17.49	7.37
MN (35)	181.56	38.88	8.51	62.73	58.86	29.62	89.07	27.68	46.72	0	23.67	1.98	4.45	7.72	13.65	6.33	6.76	6.45	4.92	15.26	6.77
DPR(36)	172.61	31.60	6.32	31.60	28.25	19.57	66.42	45.26	34.19	24.30	0	5.02	7.84	12.80	23.26	10.17	9.68	9.32	7.70	19.42	7.56
SBU(37)	15.66	2.72	0.54	2.54	2.24	1.62	4.70	2.56	2.33	1.83	4.51	0	1.06	1.58	2.96	1.22	1.07	1.03	0.92	1.85	0.70
END(38)	42.25	6.85	1.32	5.94	5.21	3.91	9.85	4.90	4.85	4.06	6.98	1.04	0	10.02	8.83	3.78	3.81	3.25	3.67	4.46	1.75
KP (39)	84.09	13.30	2.55	11.26	9.92	7.51	18.17	8.93	8.97	7.63	12.32	1.69	10.84	0	14.28	6.44	7.69	6.05	6.67	8.14	3.27
UP (41)	138.29	22.95	4.49	20.52	17.62	13.19	35.03	16.83	16.64	13.97	23.19	3.29	9.90	14.79	0	31.92	13.35	15.09	14.22	19.46	7.05
PRE(42)	61.02	10.04	1.96	8.86	7.58	5.72	14.82	6.98	7.01	5.96	9.33	1.25	3.90	6.13	29.37	0	6.51	8.33	6.98	8.79	3.19
MD (43)	82.68	12.54	2.40	10.32	8.86	6.89	15.90	7.32	7.63	6.72	9.36	1.15	4.15	7.73	12.95	6.86	0	9.80	7.86	8.64	3.56
PAL(45)	69.12	11.07	2.14	9.45	8.02	6.17	14.98	6.82	7.07	6.18	8.70	1.07	3.41	5.86	14.12	8.48	9.46	0	6.61	9.48	3.67
KDI(40)	50.88	8.06	1.56	6.89	5.94	4.53	11.12	5.26	5.34	4.59	7.01	0.93	3.75	6.31	12.99	6.92	7.39	6.45	0	5.98	2.33
BJM(51)	139.63	24.68	4.96	23.35	19.03	14.35	39.19	16.30	17.32	15.28	18.95	2.01	4.89	8.25	19.04	9.35	8.71	9.91	6.40	0	14.31
SPT(53)	60.93	10.86	2.19	9.96	7.94	6.17	14.96	5.99	6.64	6.17	6.72	0.69	1.75	3.02	6.28	3.09	3.27	3.49	2.27	13.02	0
SMR(54)	121.31	19.90	3.88	17.13	14.33	11.09	26.89	11.88	12.49	11.07	14.65	1.71	4.92	8.46	19.90	10.96	11.55	17.31	7.78	20.21	7.83
TAR(55)	22.97	3.63	0.70	2.98	2.51	1.97	4.49	1.99	2.11	1.90	2.44	0.28	0.86	1.53	3.05	1.63	2.46	2.67	1.35	2.85	1.23
PTK(56)	103.21	17.39	3.33	13.09	10.63	8.87	17.05	7.02	7.94	7.66	7.95	0.83	2.25	4.04	7.34	3.63	4.55	4.34	2.91	9.14	5.11
MDN(61)	389.77	59.04	10.60	39.96	34.18	28.79	52.23	22.62	25.29	24.03	26.38	2.81	8.15	15.17	24.05	11.78	16.58	13.92	10.14	23.81	11.40
SBG(63)	46.30	7.10	1.27	4.71	4.03	3.42	6.09	2.63	2.95	2.82	3.05	0.32	0.93	1.73	2.74	1.34	1.86	1.57	1.15	2.73	1.31
LSM(64)	61.29	9.12	1.64	6.26	5.37	4.49	8.27	3.60	4.01	3.79	4.22	0.45	1.33	2.48	3.89	1.91	2.73	2.26	1.65	3.79	1.80
BNA(65)	64.65	9.52	1.72	6.55	5.63	4.70	8.69	3.80	4.22	3.98	4.47	0.48	1.41	2.65	4.12	2.02	2.90	2.39	1.76	3.96	1.87
PG (71)	243.08	39.59	6.85	23.21	19.43	17.37	27.51	11.43	13.23	13.13	12.78	1.30	3.54	6.44	10.73	5.20	6.63	5.96	4.30	11.72	5.88
TJK(72)	310.61	49.07	7.65	23.37	19.83	18.68	26.05	10.76	12.67	12.87	11.83	1.18	3.14	5.71	9.38	4.50	5.60	5.03	3.71	10.13	4.98
LT (73)	154.16	25.06	4.24	14.34	12.17	10.89	17.06	7.17	8.27	8.18	8.05	0.82	2.25	4.11	6.70	3.24	4.17	3.68	2.70	7.10	3.49
JB (74)	102.65	16.52	2.91	10.30	8.68	7.58	12.65	5.33	6.09	5.95	6.04	0.62	1.73	3.16	5.22	2.54	3.33	2.94	2.12	5.58	2.77
PD (75)	127.34	19.97	3.52	12.82	10.96	9.41	16.23	6.96	7.87	7.58	8.00	0.84	2.38	4.40	7.02	3.42	4.63	3.97	2.91	7.13	3.45
PBR(76)	101.38	15.93	2.82	10.31	8.77	7.52	13.06	5.58	6.31	6.08	6.41	0.67	1.90	3.50	5.66	2.76	3.73	3.23	2.34	5.83	2.84
SKH(77)	91.47	14.58	2.62	9.63	8.09	6.93	12.18	5.15	5.84	5.64	5.89	0.62	1.73	3.17	5.27	2.58	3.45	3.04	2.16	5.63	2.81
AB (91)	52.20	7.84	1.49	6.45	5.60	4.33	10.02	4.71	4.87	4.25	6.14	0.78	3.18	6.48	8.10	4.04	8.54	4.62	5.06	5.01	2.06
TT (92)	28.30	4.23	0.80	3.45	2.98	2.32	5.30	2.46	2.56	2.25	3.16	0.39	1.46	2.81	4.18	2.15	7.76	2.77	2.53	2.77	1.15
SOK(95)	26.38	3.85	0.73	3.11	2.70	2.10	4.74	2.20	2.30	2.03	2.83	0.35	1.32	2.66	3.49	1.75	4.17	2.11	1.97	2.37	0.99
JAP(96)	34.10	4.73	0.89	3.75	3.26	2.56	5.60	2.60	2.74	2.43	3.31	0.40	1.45	3.00	3.69	1.82	3.45	2.13	1.88	2.67	1.14
MRK(97)	14.49	2.02	0.38	1.60	1.40	1.10	2.41	1.12	1.18	1.05	1.44	0.17	0.64	1.36	1.57	0.76	1.35	0.87	0.79	1.12	0.48
TOTAL	5,890.53	1,937.32	367.29	1,285.58	1,127.12	939.36	1,598.37	721.22	873.46	818.80	737.47	77.09	204.49	353.43	604.94	309.56	351.67	321.43	246.65	580.34	270.56

Distributed Outgoing Traffic from Si to Sj (2004) [2/2]

Xe1)	SMR(54)	TAR(55)	PTK(56)	MDN(61)	SBG(63)	LSM(64)	BNA(65)	PG (71)	TJK(72)	LT (73)	JB (74)	PD (75)	PBR(76)	SKN(77)	AB (91)	TT (92)	SON(95)	JAP(96)	MRK(97)	TOTAL
JKT(21)	142.63	31.81	127.32	425.21	60.45	76.51	79.82	282.84	367.67	187.41	127.91	151.83	124.02	113.72	64.84	37.46	34.88	43.17	20.07	6,835.53
BD (22)	21.57	4.63	19.78	59.38	8.54	10.50	10.83	42.47	53.56	28.08	18.98	21.95	17.97	16.71	8.98	5.16	4.69	5.52	2.58	1,933.54
CBN(23)	3.78	0.80	3.40	9.58	1.37	1.70	1.75	6.60	7.51	4.27	3.00	3.48	2.86	2.70	1.54	0.88	0.80	0.93	0.44	352.74
SN (24)	17.95	3.68	14.39	38.86	5.48	6.96	7.21	24.07	24.66	15.54	11.44	13.62	11.25	10.67	7.14	4.87	3.67	4.23	1.98	1,272.76
YK (27)	14.79	3.05	11.51	32.72	4.62	5.88	6.10	19.84	20.59	12.99	9.49	11.47	9.41	8.82	6.10	3.46	3.13	3.63	1.70	1,098.01
PWT(28)	11.15	2.34	9.36	26.66	3.82	4.80	4.97	17.28	18.92	11.32	8.07	9.59	7.87	7.37	4.68	2.62	2.38	2.77	1.30	884.55
SB (31)	29.34	5.78	19.53	52.89	7.38	9.58	9.96	29.71	28.63	19.25	14.64	17.96	14.83	14.06	11.55	6.52	5.82	6.58	3.09	1,669.80
JR (33)	11.84	2.33	7.33	20.91	2.91	3.81	3.97	11.27	10.79	7.38	5.63	7.03	5.78	5.43	4.95	2.76	2.47	2.79	1.32	682.65
ML (34)	12.56	2.50	8.38	23.59	3.30	4.28	4.45	13.16	12.82	8.60	6.49	8.02	6.60	6.21	5.17	2.90	2.60	2.96	1.40	831.61
MN (35)	11.00	2.22	7.99	22.16	3.11	4.00	4.15	12.91	12.89	8.41	6.27	7.64	6.29	5.93	4.46	2.52	2.27	2.60	1.22	769.63
DPR(36)	14.95	2.93	8.51	24.97	3.46	4.57	4.79	12.91	12.15	8.49	6.53	8.28	6.80	6.36	6.62	3.63	3.25	3.64	1.73	717.46
SBW(37)	1.56	0.30	0.80	2.39	0.33	0.44	0.46	1.18	1.09	0.78	0.61	0.78	0.64	0.60	0.75	0.40	0.36	0.39	0.19	67.69
END(38)	4.47	0.92	2.15	6.87	0.94	1.26	1.35	3.18	2.87	2.11	1.66	2.19	1.79	1.66	3.05	1.49	1.35	1.42	0.69	178.17
KP (39)	8.31	1.77	4.16	13.83	1.89	2.59	2.74	6.27	5.65	4.17	3.29	4.38	3.58	3.29	6.72	3.11	2.94	3.18	1.58	333.17
UP (41)	20.24	3.66	7.84	22.71	3.10	4.20	4.40	10.80	9.61	7.04	5.62	7.24	5.99	5.67	8.70	4.79	3.99	4.05	1.88	593.32
PRE(42)	10.26	1.80	3.57	10.23	1.39	1.89	1.98	4.81	4.25	3.13	2.52	3.24	2.69	2.55	4.00	2.27	1.84	1.83	0.84	278.82
MO (43)	11.40	2.86	4.72	15.18	2.03	2.86	3.01	6.48	5.57	4.25	3.48	4.63	3.84	3.60	8.91	8.62	4.63	3.67	1.57	334.63
PAL(45)	16.48	3.00	4.34	12.30	1.66	2.29	2.39	5.60	4.82	3.63	2.97	3.83	3.20	3.06	4.65	2.97	2.27	2.18	0.98	294.50
KDI(40)	7.22	1.48	2.84	8.76	1.18	1.63	1.72	3.95	3.47	2.59	2.09	2.74	2.26	2.12	4.96	2.64	2.06	1.88	0.86	220.66
BJM(51)	20.12	3.34	9.55	21.99	3.02	4.00	4.14	11.54	10.15	7.30	5.88	7.20	6.04	5.92	5.27	3.10	2.65	2.86	1.32	551.30
SPT(53)	7.09	1.32	4.86	9.58	1.32	1.73	1.78	5.27	4.54	3.27	2.66	3.17	2.68	2.69	1.97	1.17	1.01	1.11	0.51	233.14
SMR(54)	0	5.82	8.51	21.57	2.91	3.98	4.13	10.18	8.67	6.50	5.36	6.79	5.70	5.56	6.19	3.86	3.13	3.21	1.44	488.76
TAR(55)	4.94	0	1.64	4.44	0.59	0.83	0.86	1.96	1.63	1.26	1.06	1.36	1.14	1.12	1.22	0.81	0.65	0.66	0.29	92.86
PTK(56)	8.11	1.84	0	19.49	2.67	3.43	3.44	11.36	8.46	6.62	5.94	6.53	5.73	6.43	2.74	1.65	1.46	1.66	0.75	346.59
MDN(61)	23.25	5.64	22.04	0	45.66	59.55	44.57	43.77	32.35	30.44	28.45	56.98	45.96	32.01	10.47	6.25	5.77	7.05	3.21	1,354.12
SBG(63)	2.62	0.63	2.53	38.16	0	4.58	4.11	5.44	3.99	3.88	3.62	6.92	6.49	3.85	1.18	0.70	0.65	0.79	0.36	192.55
LSM(64)	3.75	0.92	3.39	52.04	4.79	0	12.65	6.41	4.88	4.45	4.02	7.40	5.91	4.45	1.73	1.03	0.96	1.18	0.53	254.84
BNA(65)	3.93	0.96	3.44	39.39	4.34	12.79	0	6.49	5.04	4.53	3.99	7.21	5.65	4.31	1.85	1.10	1.03	1.27	0.58	249.39
PG (71)	10.28	2.33	12.04	41.04	6.11	6.88	6.88	0	29.35	33.48	23.60	17.53	15.22	15.09	4.21	2.47	2.25	2.67	1.23	721.95
TJK(72)	8.61	1.91	8.82	29.82	4.40	5.15	5.26	28.85	0	20.54	11.27	12.00	9.80	8.91	3.62	2.10	1.92	2.28	1.06	723.07
LT (73)	6.29	1.43	6.72	27.32	4.17	4.57	4.60	32.05	20.00	0	13.44	12.54	10.25	8.70	2.67	1.56	1.43	1.71	0.79	668.09
JB (74)	5.06	1.17	5.88	24.91	3.79	4.03	3.95	22.04	10.70	13.11	0	11.71	11.17	11.17	2.10	1.24	1.13	1.35	0.62	349.84
PD (75)	6.69	1.58	6.76	52.14	9.77	7.75	7.46	17.11	11.92	12.78	12.24	0	27.00	11.30	2.95	1.74	1.60	1.95	0.89	464.44
PBR(76)	5.48	1.29	5.78	40.99	6.92	6.03	5.70	14.47	9.48	10.18	11.38	26.32	0	11.58	2.36	1.40	1.28	1.55	0.71	379.53
SKN(77)	5.26	1.24	6.38	28.08	4.04	4.67	4.28	14.12	8.48	8.51	11.19	10.84	11.39	0	2.15	1.28	1.16	1.38	0.63	323.36
AB (91)	5.86	1.36	2.73	9.20	1.24	1.73	1.84	3.94	3.45	2.61	2.11	2.83	2.33	2.15	0	4.40	4.22	2.98	1.30	211.97
TT (92)	3.43	0.84	1.54	5.15	0.69	0.97	1.03	2.18	1.88	1.44	1.17	1.57	1.30	1.21	4.13	0	2.36	1.50	0.63	118.80
SON(95)	2.78	0.68	1.36	4.76	0.64	0.90	0.96	1.98	1.72	1.31	1.07	1.45	1.19	1.09	3.97	2.36	0	1.91	0.76	105.04
JAP(96)	2.98	0.72	1.62	6.08	0.82	1.16	1.24	2.45	2.13	1.64	1.33	1.83	1.50	1.36	2.85	1.56	2.00	0	1.85	122.72
MRK(97)	1.22	0.29	0.67	2.53	0.34	0.48	0.52	1.03	0.90	0.69	0.56	0.77	0.63	0.57	1.17	0.60	0.73	1.69	0	52.69
TOTAL	509.25	113.17	384.18	1,308.06	225.19	284.78	275.45	757.97	787.24	513.98	391.03	494.85	414.75	360.00	232.49	138.65	122.79	138.10	64.88	27,133

Distributed Outgoing Traffic from Si to Sj (2009) [1/4]

Xeij	JKT(21)	BD (22)	CBN(23)	SM (24)	YK (27)	PWT(28)	SB (31)	JR (33)	ML (34)	MN (35)	DPR(36)	SBW(37)	END(38)	KP (39
JKT(21)	0	1326.6647	185.6169	521.15616	442.18629	428.29479	572.1975	237.69018	279.33822	284.10102	263.13147	26.53938	72.3681	133.13349
BD (22)	1223.087	0	56.46564	111.70089	95.7852	110.29851	105.33726	42.12432	51.74253	56.08197	44.39988	4.24683	10.82214	19.40841
CBN(23)	153.75906	50.72382	0	24.4755	19.79208	26.92305	20.01699	7.75278	9.75051	11.03382	7.97769	0.75411	1.87866	3.34719
SM (24)	464.47884	107.98326	26.3277	0	163.20528	97.69032	130.32873	45.03492	62.07516	87.48999	42.93135	3.8367	9.06255	15.90246
YK (27)	388.00944	91.16793	20.96955	160.69158	0	87.52968	109.04166	39.90168	56.14812	80.82207	37.78488	3.33396	7.83216	13.77243
PWT(28)	366.36516	102.34728	27.79623	93.76101	85.32027	0	66.48075	25.44129	33.06177	39.65031	25.52067	2.34171	5.72859	10.17387
SB (31)	531.11835	106.05168	22.43808	135.72657	115.33914	72.12996	0	127.03446	203.35833	129.37617	93.98592	7.39557	15.66432	26.69814
JR (33)	201.41352	38.71098	7.938	42.82551	38.53899	25.20315	115.97418	0	66.32199	36.70002	58.46337	3.67794	7.11774	11.97315
ML (34)	238.77504	47.97198	10.06803	59.535	54.70605	33.03531	187.27065	66.90411	0	62.48529	44.55864	3.37365	7.09128	12.14514
MN (35)	240.20388	51.43824	11.25873	82.99179	77.87178	39.18726	117.83961	36.62064	61.81056	0	31.31541	2.61954	5.88735	10.21356
DPR(36)	228.36303	41.8068	8.36136	41.8068	37.37475	25.89111	87.87366	59.87898	45.23337	32.1489	0	6.64146	10.37232	16.9344
SBW(37)	20.71818	3.59856	0.71442	3.36042	2.96352	2.14326	6.2181	3.38688	3.08259	2.42109	5.96673	0	1.40238	2.09034
END(38)	55.89675	9.06255	1.74636	7.85862	6.89283	5.17293	13.03155	6.4827	6.41655	5.37138	9.23454	1.37592	0	13.25646
KP (39)	111.25107	17.5959	3.37365	14.89698	13.12416	9.93573	24.03891	11.81439	11.86731	10.09449	16.29936	2.23587	14.34132	0
UP (41)	182.95767	30.36285	5.94027	27.14796	23.31126	17.45037	46.34469	22.26609	22.01472	18.48231	30.68037	4.35267	13.0977	19.56717
PRE(42)	80.72946	13.28292	2.59308	11.72178	10.02834	7.56756	19.60686	9.23454	9.27423	7.88508	12.34359	1.65375	5.1597	8.10999
MO (43)	109.38564	16.59042	3.1752	13.65336	11.72178	9.11547	21.0357	9.68436	10.09449	8.89056	12.38328	1.52145	5.49045	10.22679
PAL(45)	91.44576	14.64561	2.83122	12.50235	10.61046	8.16291	19.81854	9.02286	9.35361	8.17614	11.5101	1.41561	4.51143	7.75278
KDI(40)	67.31424	10.66338	2.06388	9.11547	7.85862	5.99319	14.71176	6.95898	7.06482	6.07257	9.27423	1.23039	4.96125	8.34813
BJM(51)	184.73049	32.65164	6.56208	30.89205	25.17669	18.98505	51.84837	21.5649	22.91436	20.21544	25.07085	2.65923	6.46947	10.91475
SPT(53)	80.61039	14.36778	2.89737	13.17708	10.50462	8.16291	19.79208	7.92477	8.78472	8.16291	8.89056	0.91287	2.31525	3.99546
SMR(54)	160.49313	26.3277	5.13324	22.66299	18.95859	14.67207	35.57547	15.71724	16.52427	14.64561	19.38195	2.26233	6.50916	11.19258
TAR(55)	30.38931	4.80249	0.9261	3.94254	3.32073	2.60631	5.94027	2.63277	2.79153	2.5137	3.22812	0.37044	1.13778	2.02419
PTK(56)	136.54683	23.00697	4.40559	17.31807	14.06349	11.73501	22.55715	9.28746	10.50462	10.13418	10.51785	1.09809	2.97675	5.34492
MDN(61)	515.66571	78.10992	14.0238	52.86708	45.22014	38.08917	69.10029	29.92626	33.45867	31.79169	34.90074	3.71763	10.78245	20.06991
SBG(63)	61.2549	9.3933	1.68021	6.23133	5.33169	4.52466	8.05707	3.47949	3.90285	3.73086	4.03515	0.42336	1.23039	2.28879
LSM(64)	81.08667	12.06576	2.16972	8.28198	7.10451	5.94027	10.94121	4.7628	5.30523	5.01417	5.58306	0.59535	1.75959	3.28104
BNA(65)	85.53195	12.59496	2.27556	8.66565	7.44849	6.2181	11.49687	5.0274	5.58306	5.26554	5.91381	0.63504	1.86543	3.50595
PG (71)	321.59484	52.37757	9.06255	30.70683	25.70589	22.98051	36.39573	15.12189	17.50329	17.37099	16.90794	1.7199	4.68342	8.52012
TJK(72)	410.93703	64.91961	10.12095	30.91851	26.23509	24.71364	34.46415	14.23548	16.76241	17.02701	15.65109	1.56114	4.15422	7.55433
LT (73)	203.95368	33.15438	5.60952	18.97182	16.10091	14.40747	22.57038	9.48591	10.94121	10.82214	10.65015	1.08486	2.97675	5.43753
JB (74)	135.80595	21.85596	3.84993	13.6269	11.48364	10.02834	16.73595	7.05159	8.05707	7.87185	7.99092	0.82026	2.28879	4.18068
PD (75)	168.47082	26.42031	4.65696	16.96086	14.50008	12.44943	21.47229	9.20808	10.41201	10.02834	10.584	1.11132	3.14874	5.8212
PBR(76)	134.12574	21.07539	3.73086	13.64013	11.60271	9.94896	17.27838	7.38234	8.34813	8.04384	8.48043	0.88641	2.5137	4.6305
SKN(77)	121.01481	19.28934	3.46626	12.74049	10.70307	9.16839	16.11414	6.81345	7.72632	7.46172	7.79247	0.82026	2.28879	4.19391
AB (91)	69.0606	10.37232	1.97127	8.53335	7.4088	5.72859	13.25646	6.23133	6.44301	5.62275	8.12322	1.03194	4.20714	8.57304
TT (92)	37.4409	5.59629	1.0584	4.56435	3.94254	3.06936	7.0119	3.25458	3.38688	2.97675	4.18068	0.51597	1.93158	3.71763
SON(95)	34.90074	5.09355	0.96579	4.11453	3.5721	2.7783	6.27102	2.9106	3.0429	2.68569	3.74409	0.46305	1.74636	3.51918
JAP(96)	45.1143	6.25779	1.17747	4.96125	4.31298	3.38688	7.4088	3.4398	3.62502	3.21489	4.37913	0.5292	1.91835	3.969
MRK(97)	19.17027	2.67246	0.50274	2.1168	1.8522	1.4553	3.18843	1.48176	1.56114	1.38915	1.90512	0.22491	0.84672	1.79928
	7793.1712	2563.0744	485.92467	1700.8223	1491.1798	1242.7733	2114.6435	954.17406	1155.5876	1083.2724	975.67281	101.99007	270.54027	467.58789

Distributed Outgoing Traffic from Si to Sj (2009) [2/4]

UP (41)	PRE(42)	MO (43)	PAL(45)	KDI(40)	BJM(51)	SPT(53)
211.44186	101.40795	130.26258	112.89159	85.21443	218.21562	104.62284
32.34735	15.37326	18.21771	16.6698	12.44943	35.56224	17.18577
5.6889	2.69892	3.12228	2.89737	2.15649	6.42978	3.10905
27.95499	13.12416	14.48685	13.74597	10.27971	32.53257	15.24096
23.64201	11.04705	12.25098	11.48364	8.7318	26.10279	11.95992
17.25192	8.13645	9.28746	8.62596	6.49593	19.1835	9.06255
49.71834	22.86144	23.24511	22.70268	17.29161	56.86254	23.85369
21.80304	9.82989	9.76374	9.44622	7.46172	21.59136	8.70534
21.75012	9.96219	10.26648	9.86958	7.64694	23.13927	9.75051
18.05895	8.37459	8.94348	8.53335	6.50916	20.18898	8.95671
30.77298	13.45491	12.80664	12.33036	10.1871	25.69266	10.00188
3.91608	1.61406	1.41561	1.36269	1.21716	2.44755	0.9261
11.68209	5.00094	5.04063	4.29975	4.85541	5.90058	2.31525
18.89244	8.52012	10.17387	8.00415	8.82441	10.76922	4.32621
0	42.23016	17.66205	19.96407	18.81306	25.74558	9.32715
38.85651	0	8.61273	11.02059	9.23454	11.62917	4.22037
17.13285	9.07578	0	12.9654	10.39878	11.43072	4.70988
18.68076	11.21904	12.51558	0	8.74503	12.54204	4.85541
17.18577	9.15516	9.77697	8.53335	0	7.91154	3.08259
25.18992	12.37005	11.52333	13.11093	8.4672	0	18.93213
8.30844	4.08807	4.32621	4.61727	3.00321	17.22546	0
26.3277	14.50008	15.28065	22.90113	10.29294	26.73783	10.35909
4.03515	2.15649	3.25458	3.53241	1.78605	3.77055	1.62729
9.71082	4.80249	6.01965	5.74182	3.84993	12.09222	6.76053
31.81815	15.58494	21.93534	18.41616	13.41522	31.50063	15.0822
3.62502	1.77282	2.46078	2.07711	1.52145	3.61179	1.73313
5.14647	2.52693	3.61179	2.98998	2.18295	5.01417	2.3814
5.45076	2.67246	3.8367	3.16197	2.32848	5.23908	2.47401
14.19579	6.8796	8.77149	7.85862	5.6889	15.50556	7.77924
12.40974	5.9535	7.4088	6.65469	4.90833	13.40199	6.58854
8.8641	4.28652	5.51691	4.86864	3.5721	9.3933	4.61727
6.90606	3.36042	4.40559	3.88962	2.80476	7.38234	3.66471
9.28746	4.52466	6.12549	5.25231	3.84993	9.43299	4.56435
7.48818	3.65148	4.93479	4.27329	3.09582	7.71309	3.75732
6.97221	3.41334	4.56435	4.02192	2.85768	7.44849	3.71763
10.7163	5.34492	11.29842	6.11226	6.69438	6.62823	2.72538
5.53014	2.84445	10.26648	3.66471	3.34719	3.66471	1.52145
4.61727	2.31525	5.51691	2.79153	2.60631	3.13551	1.30977
4.88187	2.40786	4.56435	2.81799	2.48724	3.53241	1.50822
2.07711	1.00548	1.78605	1.15101	1.04517	1.48176	0.63504
800.33562	409.54788	465.25941	425.25189	326.31795	767.78982	357.95088

Distributed Outgoing Traffic from Si to Sj (2009) [3/4]

Xeij	SMR(54)	TAR(55)	PTK(56)	MDN(61)	SBG(63)	LSM(64)	BNA(65)	PG (71)	TJK(72)	LT (73)	JB (74)	PD (75)	PBR(76)	SKN(77)
JKT(21)	188.69949	42.08463	168.44436	562.55283	79.97535	101.22273	105.60186	472.23702	613.87139	312.90461	213.56186	253.49932	207.06702	189.86987
BD (22)	28.53711	6.12549	26.16894	78.55974	11.29842	13.8915	14.32809	70.909016	89.425169	46.883098	31.689501	36.648291	30.003179	27.89945
CBN(23)	5.00094	1.0584	4.4982	12.67434	1.81251	2.2491	2.31525	11.019532	12.538891	7.129303	5.008878	5.8102985	4.7751304	4.5079902
SM (24)	23.74785	4.86864	19.03797	51.41178	7.25004	9.20808	9.53883	40.187898	41.172977	25.945988	19.100521	22.740306	18.783293	17.814909
YK (27)	19.56717	4.03515	15.22773	43.28856	6.11226	7.77924	8.0703	33.12538	34.377599	21.688442	15.844751	19.15061	15.711181	14.726101
PWT(28)	14.75145	3.09582	12.38328	35.53578	5.05386	6.3504	6.57531	28.851137	31.589324	18.900166	13.473882	16.011713	13.139957	12.305144
SB (31)	38.81682	7.64694	25.83819	69.97347	9.76374	12.67434	13.17708	49.604588	47.801392	32.140301	24.443325	29.986483	24.760554	23.474942
JR (33)	15.66432	3.08259	9.69759	27.66393	3.84993	5.04063	5.25231	18.816685	18.015265	12.32184	9.3999944	11.737471	9.6504383	9.0660692
ML (34)	16.61688	3.3075	11.08674	31.20957	4.3659	5.66244	5.88735	21.972278	21.404605	14.358784	10.835873	13.390401	11.019532	10.368377
MN (35)	14.553	2.93706	10.57077	29.31768	4.11453	5.292	5.49045	21.554872	21.521479	14.041555	10.468555	12.755943	10.501948	9.9008822
DPR(36)	19.77885	3.87639	11.25873	33.03531	4.57758	6.04611	6.33717	21.554872	20.285956	14.175125	10.902658	13.824503	11.353457	10.618821
SBW(37)	2.06388	0.3969	1.0584	3.16197	0.43659	0.58212	0.60858	1.9701587	1.8198923	1.3023083	1.0184719	1.3023083	1.0685606	1.0017756
END(38)	5.91381	1.21716	2.84445	9.08901	1.24362	1.69344	1.78605	5.3094107	4.7918286	3.5229109	2.7715792	3.6564809	2.9886305	2.7715792
KP (39)	10.99413	2.34171	5.50368	18.29709	2.50047	3.42657	3.62502	10.468555	9.4333869	6.9623404	5.4930695	7.3129619	5.9772611	5.4930695
UP (41)	26.77752	4.84218	10.37232	30.04533	4.1013	5.5566	5.8212	18.031961	16.045106	11.754167	9.3832981	12.088092	10.00106	9.4667794
PRE(42)	13.57398	2.3814	4.72311	13.53429	1.83897	2.50047	2.61954	8.0309011	7.0959105	5.2259294	4.2074575	5.4095882	4.4912939	4.2575463
MO (43)	15.0822	3.78378	6.24456	20.08314	2.68569	3.78378	3.98223	10.819176	9.2998168	7.0959105	5.8102985	7.7303684	6.4113638	6.0106536
PAL(45)	21.80304	3.969	5.74182	16.2729	2.19618	3.02967	3.16197	9.3499056	8.0475973	6.0607424	4.9587892	6.3946676	5.3428032	5.1090556
KD1(40)	9.55206	1.95804	3.75732	11.56302	1.56114	2.15649	2.27556	6.5950227	5.7936022	4.3243313	3.4895183	4.5747752	3.7733548	3.5396071
BJM(51)	26.61876	4.41882	12.63465	29.09277	3.99546	5.292	5.47722	19.267484	16.946704	12.18827	9.8174009	12.021307	10.084541	9.8841859
SPT(53)	9.38007	1.74636	6.42978	12.67434	1.74636	2.28879	2.35494	8.798929	7.580102	5.459677	4.4412052	5.2927144	4.4745977	4.4912939
SMR(54)	0	7.69986	11.25873	28.53711	3.84993	5.26554	5.46399	16.996793	14.475657	10.852569	8.9491954	11.336761	9.5168682	9.2831206
TAR(55)	6.53562	0	2.16972	5.87412	0.78057	1.09809	1.13778	3.272467	2.7214904	2.1037288	1.7698036	2.2706914	1.9033736	1.8699811
PTK(56)	10.72953	2.43432	0	25.78527	3.53241	4.53789	4.55112	18.966951	14.125036	11.052924	9.9175784	10.902658	9.566957	10.735695
MDN(61)	30.75975	7.46172	29.15892	0	60.40818	78.78465	58.96611	73.07953	54.012401	50.823415	47.50086	95.135289	76.736011	53.444728
SBG(63)	3.46626	0.83349	3.34719	50.48568	0	6.05934	5.43753	9.0827654	6.6618077	6.4781489	6.0440461	14.893064	10.835873	6.4280601
LSM(64)	4.96125	1.21716	4.48497	68.84892	6.33717	0	16.73595	10.702303	8.1477749	7.4298357	6.7118965	12.355232	9.8674897	7.4298357
BNA(65)	5.19939	1.27008	4.55112	52.11297	5.74182	16.92117	0	10.835873	8.414915	7.5634058	6.6618077	12.038003	9.4333869	7.1960881
PG (71)	13.60044	3.08259	15.92892	54.29592	8.08353	9.10224	9.10224	0	49.003523	55.899078	39.403174	29.268544	25.411708	25.194656
TJK(72)	11.39103	2.52693	11.66886	39.45186	5.8212	6.81345	6.95898	48.16871	0	34.294118	18.816685	20.035512	16.362335	14.876368
LT (73)	8.32167	1.89189	8.89056	36.14436	5.51691	6.04611	6.0858	53.511513	33.39252	0	22.439773	20.93711	17.113667	14.525746
JB (74)	6.69438	1.54791	7.77924	32.95593	5.01417	5.33169	5.22585	36.798557	17.864998	21.888797	0	19.55132	18.649722	18.649722
PD (75)	8.85087	2.09034	8.94348	68.98122	12.92571	10.25325	9.86958	28.567301	19.901942	21.33782	20.436222	0	45.079902	18.866774
PBR(76)	7.25004	1.70667	7.64694	54.22977	9.15516	7.97769	7.5411	24.159488	15.828054	16.996793	19.000344	43.944556	0	19.334269
SKN(77)	6.95898	1.64052	8.44074	37.14984	5.34492	5.91381	5.66244	23.575119	14.158428	14.208517	18.683115	18.098746	19.01704	0
AB (91)	7.75278	1.79928	3.61179	12.1716	1.64052	2.28879	2.43432	6.5783264	5.7602097	4.3577239	3.5229109	4.7250416	3.8902286	3.5896959
TT (92)	4.53789	1.11132	2.03742	6.81345	0.91287	1.28331	1.36269	3.6397847	3.1388969	2.4042614	1.9534624	2.6213128	2.1705138	2.0202475
SON(95)	3.67794	0.89964	1.79928	6.29748	0.84672	1.1907	1.27008	3.3058595	2.8717567	2.1872101	1.7864998	2.4209577	1.9868549	1.8198923
JAP(96)	3.94254	0.95256	2.14326	8.04384	1.08486	1.53468	1.64052	4.0905837	3.5563034	2.7381866	2.2206026	3.0554156	2.504439	2.2706914
MRK(97)	1.61406	0.38367	0.88641	3.34719	0.44982	0.63504	0.68796	1.7197148	1.5026634	1.1520419	0.9349906	1.285612	1.0518644	0.9516868
TOTAL	673.73775	149.72391	508.27014	1730.5634	297.92637	376.76394	364.42035	1265.5264	1314.3984	858.15437	652.87385	826.21443	692.47738	601.06536

Distributed Outgoing Traffic from Si to Sj (2009) [4/4]

AB (91)	TT (92)	SON(95)	JAP(96)	MRK(97)	TOTAL
85.78332	49.55958	46.14624	57.11391	26.55261	9043.4062
11.88054	6.82668	6.20487	7.30296	3.41334	2558.0734
2.03742	1.16424	1.0584	1.23039	0.58212	440.21502
9.44622	5.38461	4.85541	5.59629	2.61954	1683.8615
8.0703	4.57758	4.14099	4.80249	2.2491	1452.6672
6.0858	3.46626	3.14874	3.66471	1.7199	1170.2597
15.28065	8.62596	7.69986	8.70534	4.08807	2209.1454
6.54885	3.65148	3.20781	3.69117	1.74636	903.14595
6.83991	3.8367	3.4398	3.91608	1.8522	1100.22
5.90058	3.33396	3.00321	3.4398	1.61406	1018.2205
8.75826	4.80249	4.29975	4.81572	2.28879	949.19958
0.99225	0.5292	0.47628	0.51597	0.25137	89.55387
4.03515	1.97127	1.78605	1.87866	0.91287	235.71891
8.89056	4.11453	3.88962	4.20714	2.09034	440.78391
11.5101	6.33717	5.27877	5.35815	2.48724	784.96236
5.292	3.00321	2.43432	2.42109	1.11132	368.87886
11.78793	11.40426	6.12549	4.85541	2.07711	442.71549
6.15195	3.92931	3.00321	2.88414	1.29654	389.6235
6.56208	3.49272	2.72538	2.48724	1.13778	291.93318
6.97221	4.1013	3.50595	3.78378	1.74636	729.3699
2.60631	1.54791	1.33623	1.46853	0.67473	308.44422
8.18937	5.10678	4.14099	4.24683	1.90512	646.62948
1.61406	1.07163	0.85995	0.87318	0.38367	121.79538
3.62502	2.18295	1.93158	2.19618	0.99225	458.53857
13.85181	8.26875	7.63371	9.32715	4.24683	1791.5008
1.56114	0.9261	0.85995	1.04517	0.47628	254.74365
2.28879	1.36269	1.27008	1.56114	0.70119	337.15332
2.44755	1.4553	1.36269	1.68021	0.76734	329.94297
5.56983	3.26781	2.97675	3.53241	1.62729	955.13985
4.78926	2.7783	2.54016	3.01644	1.40238	956.62161
3.53241	2.06388	1.89189	2.26233	1.04517	619.28307
2.7783	1.64052	1.49499	1.78605	0.82026	462.83832
3.90285	2.30202	2.1168	2.57985	1.17747	614.45412
3.12228	1.8522	1.69344	2.05065	0.93933	502.11819
2.84445	1.69344	1.53468	1.82574	0.83349	427.80528
0	5.8212	5.58306	3.8367	1.7199	280.43631
5.46399	0	3.12228	1.9845	0.83349	157.1724
5.25231	3.12228	0	2.52693	1.00548	138.96792
3.77055	2.06388	2.646	0	2.44755	162.35856
1.54791	0.7938	0.96579	2.23587	0	69.70887
307.58427	183.43395	162.45117	182.7063	85.83624	35897.607

Distributed Outgoing Traffic from Si to Sj (2014) [1/4]

Xeij	JKT(21)	BD (22)	CBN(23)	SM (24)	YK (27)	PWT(28)	SB (31)	JR (33)	ML (34)	MN (35)	DPR(36)	SBW(37)	END(38)	KP (39)
JKT(21)	0	1674.2509	234.24853	657.69907	558.0391	540.50802	722.11325	299.96501	352.52483	358.53549	332.07192	33.492698	91.328542	168.01446
BD (22)	1543.5358	0	71.259638	140.96652	120.88092	139.19672	132.93562	53.160892	65.299073	70.775446	56.032649	5.3594995	13.657541	24.493413
CBN(23)	194.04393	64.013461	0	30.888081	24.977605	33.976889	25.261441	9.7840084	12.305144	13.924681	10.067845	0.9516868	2.3708689	4.2241538
SM (24)	586.1723	136.27487	33.225557	0	205.96506	123.28518	164.47486	56.834069	78.338852	110.41237	54.179364	4.8419154	11.436938	20.068905
YK (27)	489.66791	115.05393	26.463572	202.79277	0	110.46246	137.61057	50.35592	70.858927	101.99745	47.684519	4.2074575	9.8841859	17.380807
PWT(28)	462.35283	129.16227	35.078842	118.32639	107.67418	0	83.898707	32.106908	41.723954	50.038691	32.207086	2.955238	7.2294806	12.839424
SB (31)	670.27136	133.83722	28.316857	171.28693	145.55799	91.02801	0	160.31749	256.63821	363.27273	118.61023	9.3332093	19.768372	33.693053
JR (33)	254.18386	48.853257	10.017756	54.045794	48.636205	31.806375	146.35942	0	83.698351	46.315425	73.780773	4.6415603	8.9825879	15.110115
ML (34)	301.3341	60.540639	12.705854	75.13317	69.039035	41.690561	236.33556	84.432987	0	78.856436	56.233004	4.2575463	8.9491954	15.327167
MN (35)	303.1373	64.915059	14.208517	104.73564	98.274186	49.454322	148.71359	46.215248	78.004927	0	39.520047	3.3058595	7.4298357	12.889513
DPR(36)	288.19414	52.760182	10.552036	52.760182	47.166935	32.674581	110.89656	75.567273	57.084513	40.571912	0	8.3815225	13.089868	21.371213
SBW(37)	26.146343	4.5413827	0.901598	4.24085	3.7399622	2.7047941	7.8472422	4.2742426	3.8902286	3.0554156	7.5300133	0	1.7698036	2.6380091
END(38)	70.541699	11.436938	2.2039063	9.9175784	8.6987515	6.5282377	16.445816	8.1811674	8.0976861	6.7786816	11.653989	1.736411	0	16.729653
KP (39)	140.39885	22.206026	4.2575463	18.799989	16.56269	12.538891	30.337104	14.90976	14.976545	12.739246	20.569792	2.8216679	18.098746	0
UP (41)	230.89258	38.317917	7.4966207	34.200726	29.41881	22.022367	58.486999	28.099806	27.782577	23.324675	38.718627	5.4930695	16.529297	24.693769
PRE(42)	101.88058	16.763045	3.272467	14.792886	12.655765	9.5502607	24.743857	11.653989	11.704078	9.950971	15.577611	2.0870325	6.5115414	10.234807
MO (43)	138.04468	20.93711	4.0071024	17.23054	14.792886	11.503723	26.547053	12.221662	12.739246	11.219887	15.627699	1.9200699	6.9289479	12.906209
PAL(45)	115.40455	18.48276	3.5729996	15.777966	13.390401	10.301592	25.010997	11.386849	11.804256	10.318289	14.525746	1.7864998	5.6934247	9.7840084
KDI(40)	84.950571	13.457186	2.6046166	11.503723	9.9175784	7.5634058	18.566241	8.7822328	8.9158028	7.6635833	11.704078	1.5527522	6.2610975	10.53534
BJM(51)	233.12988	41.20637	8.281345	38.985767	31.772983	23.959133	65.432643	27.214904	28.917922	25.511885	31.639413	3.3559483	8.1644711	13.774415
SPT(53)	101.73031	18.132138	3.6564809	16.629475	13.25683	10.301592	24.977605	10.00106	11.086317	10.301592	11.219887	1.1520419	2.9218455	5.0422705
SMR(54)	202.54233	33.225557	6.4781489	28.600693	23.925741	18.516152	44.896243	19.835157	20.853629	18.48276	24.460021	2.8550605	8.2145599	14.125036
TAR(55)	38.351309	6.0607424	1.1687382	4.9754855	4.1907613	3.2891632	7.4966207	3.3225557	3.5229109	3.1722894	4.0738874	0.4674953	1.4358784	2.5545278
PTK(56)	172.3221	29.034796	5.5598546	21.855404	17.748124	14.809583	28.467123	11.720775	13.25683	12.789335	13.273527	1.3857896	3.7566585	6.745289
MDN(61)	650.77013	98.574719	17.698036	66.718255	57.067817	48.068533	87.204566	37.76694	42.224842	40.121113	44.044734	4.6916491	13.607452	25.328226
SBG(63)	77.303684	11.854345	2.120425	7.8639385	6.7285928	5.7101209	10.168022	4.3911164	4.9253967	4.7083453	5.0923593	0.5342803	1.5527522	2.888453
LSM(64)	102.33138	15.226989	2.7381866	10.451859	8.9658916	7.4966207	13.807807	6.0106536	6.6952003	6.3278825	7.0458217	0.7513317	2.2206026	4.1406725
BNA(65)	107.94132	15.89484	2.8717567	10.93605	9.3999944	7.8472422	14.50905	6.3445788	7.0458217	6.6451115	7.4632282	0.8014205	2.3541727	4.4245089
PG (71)	405.85269	66.100493	11.436938	38.752019	32.440833	29.001404	45.931411	19.083825	22.089152	21.922189	21.33782	2.1705138	5.910476	10.752391
TJK(72)	518.60253	81.928548	12.772639	39.01916	33.108684	31.188614	43.493757	17.965176	21.154161	21.488087	19.751676	1.9701587	5.2426256	9.5335645
LT (73)	257.38954	41.840828	7.0792142	23.942437	20.319348	18.182227	28.48382	11.971218	13.807807	13.657541	13.440489	1.3690933	3.7566585	6.8621629
JB (74)	171.38711	27.582222	4.8586117	17.197148	14.492354	12.655765	21.120769	8.8991066	10.168022	9.9342747	10.084541	1.0351681	2.888453	5.2760182
PD (75)	212.61017	33.342431	5.8770835	21.404605	18.299101	15.711181	27.09803	11.620597	13.139957	12.655765	13.357008	1.4024858	3.8737099	7.3463544
PBR(76)	169.26668	26.597142	4.7083453	17.213844	14.64262	12.555588	21.805316	9.3165131	10.53534	10.151326	10.702303	1.1186494	3.1722894	5.843691
SKN(77)	152.72069	24.343147	4.3744201	16.078498	13.507274	11.570508	20.336045	8.5985739	9.7506158	9.4166906	9.8340971	1.0351681	2.888453	5.2927144
AB (91)	87.154477	13.089868	2.4877427	10.769088	9.3499056	7.2294806	16.729653	7.8639385	8.1310786	7.0959105	10.251504	1.3023083	5.3094107	10.819176
TT (92)	47.250416	7.062518	1.3357008	5.7602097	4.9754855	3.8735323	8.8490178	4.10728	4.2742426	3.7566585	5.2760182	0.6511541	2.437654	4.6916491
SON(95)	44.044734	6.4280601	1.218827	5.1925369	4.5079902	3.5062146	7.9140272	3.6731772	3.8401398	3.3893408	4.7250416	0.5843691	2.2039063	4.4412052
JAP(96)	56.934247	7.897331	1.4859671	6.2610975	5.4429808	4.2742426	9.3499056	4.3410276	4.5747752	4.0571912	5.5264621	0.6678504	2.4209577	5.008878
MRK(97)	24.192881	3.3726445	0.6344579	2.6714016	2.3374764	1.8365886	4.0237987	1.8699811	1.9701587	1.7531073	2.4042614	0.2838364	1.0685606	2.2706914
	9834.982	3234.5998	613.23693	2146.4378	1881.8689	1568.3799	2668.6801	1204.1677	1458.3515	1367.0898	1231.2991	128.71147	341.42182	590.09592

Distributed Outgoing Traffic from Si to Sj (2014) [2/4]

UP (41)	PRE(42)	MO (43)	PAL(45)	KDI(40)	BJM(51)	SPT(53)
266.83963	127.97683	164.39138	142.46919	107.54061	275.38811	132.03402
40.822356	19.401054	22.99075	21.037288	15.711181	44.879547	21.688442
7.1793918	3.406037	3.9403174	3.6564809	2.7214904	8.1143824	3.9236211
35.279197	16.56269	18.282405	17.347414	12.972994	41.056103	19.234092
29.836217	13.941377	15.460737	14.492354	11.019532	32.941721	15.093419
21.771923	10.2682	11.720775	10.885962	8.1978637	24.209577	11.436938
62.744545	28.851137	29.335329	28.650782	21.822012	71.760525	30.103357
27.515436	12.405321	12.32184	11.92113	9.4166906	27.248296	10.986139
27.448651	12.572284	12.956298	12.45541	9.6504383	29.201759	12.305144
22.790395	10.568733	11.286672	10.769088	8.2145599	25.478493	11.303368
38.835501	16.980096	16.16198	15.560914	12.85612	32.424137	12.622373
4.942093	2.0369437	1.7864998	1.7197148	1.5360559	3.0888081	1.1687382
14.742798	6.3111863	6.3612751	5.4262845	6.1275274	7.446532	2.9218455
23.842259	10.752391	12.839424	10.101237	11.136405	13.590756	5.459677
0	53.294462	22.289507	25.194656	23.742082	32.490922	11.770863
49.036916	0	10.869265	13.907985	11.653989	14.676013	5.3261069
21.621657	11.453634	0	16.362335	13.12326	14.425569	5.9438686
23.575119	14.158428	15.794662	0	11.036228	15.828054	6.1275274
21.688442	11.553812	12.338536	10.769088	0	9.9843635	3.8902286
31.789679	15.611003	14.542442	16.545994	10.685606	0	23.892348
10.485251	5.1591443	5.459677	5.8269947	3.790051	21.738531	0
33.225557	18.299101	19.28418	28.901226	12.98969	33.743141	13.073172
5.0923593	2.7214904	4.10728	4.4579014	2.2539951	4.7584341	2.05364
12.255055	6.0607424	7.5967883	7.2461768	4.8586117	15.260382	8.5317889
40.154505	19.668194	27.682399	23.241194	16.930008	39.753795	19.033736
4.5747752	2.2372988	3.1055044	2.6213128	1.9200699	4.558079	2.1872101
6.4948451	3.1889857	4.558079	3.7733548	2.7548829	6.3278825	3.0053268
6.8788591	3.3726445	4.8419154	3.9904061	2.9385418	6.611719	3.1222006
17.915087	8.6820552	11.06962	9.9175784	7.1793918	19.568017	9.8174009
15.661092	7.513317	9.3499056	8.3982188	6.1943125	16.913311	8.3147375
11.186494	5.4095882	6.9623404	6.1442237	4.5079902	11.854345	5.8269947
8.7154477	4.24085	5.5598546	4.9087004	3.5396071	9.3165131	4.624864
11.720775	5.7101209	7.7303684	6.6284152	4.8586117	11.904433	5.7602097
9.4500832	4.6081678	6.227705	5.392892	3.9069248	9.7339196	4.7417378
8.798929	4.3076351	5.7602097	5.075663	3.6063922	9.3999944	4.6916491
13.523971	6.745289	14.258606	7.7136721	8.4483076	8.3648263	3.4394296
6.9790367	3.5896959	12.956298	4.624864	4.2241538	4.624864	1.9200699
5.8269947	2.9218455	6.9623404	3.5229109	3.2891632	3.9570136	1.6529297
6.1609199	3.0387193	5.7602097	3.5563034	3.1368969	4.4579014	1.9033736
2.6213128	1.2689158	2.2539951	1.4525746	1.3190045	1.8699811	0.8014205
1010.0236	516.84942	587.15738	536.66789	411.81325	968.95075	451.73401

Distributed Outgoing Traffic from Si to Sj (2014) [3/4]

Xeij	SMR(54)	TAR(55)	PTK(56)	MDN(61)	SBG(63)	LSM(64)	BNA(65)	PG (71)	TJK(72)	LT (73)	JB (74)	PD (75)	PBR(76)	SKN(77)
JKT(21)	238.13876	53.110803	212.57678	709.94167	100.92889	127.74309	133.26955	374.19732	486.42741	247.94343	169.22493	200.87109	164.07846	150.45156
BD (22)	36.013833	7.7303684	33.025202	99.142392	14.258606	17.531073	18.08205	56.18781	70.85988	37.14984	25.11054	29.03985	23.77431	22.10733
CBN(23)	6.3111863	1.3357008	5.6767284	15.995017	2.2873876	2.8383642	2.9218455	8.7318	9.93573	5.64921	3.968	4.60404	3.78378	3.5721
SM (24)	29.969787	6.1442237	24.025918	64.881666	9.1495505	11.620597	12.038003	31.84461	32.62518	20.55942	15.13512	18.01926	14.88375	14.11641
YK (27)	24.693769	5.0923593	19.217395	54.630163	7.7136721	9.8174009	10.184719	26.24832	27.24057	17.18577	12.55527	15.17481	12.44943	11.66886
PWT(28)	18.61633	3.9069248	15.627699	44.846154	6.3779713	8.0142048	8.2980412	22.86144	25.03116	14.97636	10.67661	12.68757	10.41201	9.75051
SB (31)	48.986827	9.6504383	32.607796	88.306519	12.32184	15.995017	16.629475	39.30633	37.87749	25.46775	19.36872	23.76108	19.62009	18.60138
JR (33)	19.768372	3.8902286	12.238359	34.91188	4.8586117	6.3612751	6.6284152	14.91021	14.27517	9.76374	7.44849	9.30069	7.64694	7.18389
ML (34)	20.970503	4.174065	13.991466	39.386477	5.5097658	7.1459993	7.4298357	17.41068	16.96086	11.3778	8.58627	10.61046	8.7318	8.21583
MN (35)	18.365886	3.7065697	13.340312	36.998912	5.1925369	6.678504	6.9289479	17.07993	17.05347	11.12643	8.29521	10.10772	8.32167	7.84539
DPR(36)	24.960909	4.8920042	14.208517	41.690561	5.776906	7.6301908	7.9975085	17.07993	16.07445	11.23227	8.63919	10.95444	8.9964	8.41428
SBW(37)	2.6046166	0.5008878	1.3357008	3.9904061	0.5509766	0.7346354	0.768028	1.56114	1.44207	1.03194	0.80703	1.03194	0.84672	0.7938
END(38)	7.4632282	1.5360559	3.5896959	11.470331	1.5694484	2.1371213	2.2539951	4.20714	3.79701	2.79153	2.19618	2.89737	2.36817	2.19618
KP (39)	13.874592	2.955238	6.9456442	23.090928	3.1555931	4.3243313	4.5747752	8.29521	7.47495	5.51691	4.35267	5.79474	4.73634	4.35267
UP (41)	33.79323	6.1108312	13.089868	37.917206	5.1758406	7.0124292	7.3463544	14.2884	12.71403	9.31392	7.43526	9.57852	7.92477	7.50141
PRE(42)	17.130363	3.0053268	5.9605648	17.080274	2.3207801	3.1555931	3.3058595	6.36363	5.62275	4.14099	3.33396	4.28652	3.55887	3.37365
MO (43)	19.033736	4.7751304	7.8806347	25.344923	3.3893408	4.7751304	5.0255743	8.57304	7.36911	5.62275	4.60404	6.12549	5.08032	4.7628
PAL(45)	27.515436	5.008878	7.2461768	20.5364	2.7715792	3.8234435	3.9904061	7.4088	6.37686	4.80249	3.92931	5.06709	4.2336	4.04838
KDI(40)	12.0547	2.4710465	4.7417378	14.592531	1.9701587	2.7214904	2.8717567	5.22585	4.59081	3.42657	2.76507	3.62502	2.98998	2.80476
BJM(51)	33.592875	5.5765508	15.944928	36.715076	5.0422705	6.678504	6.9122516	15.26742	13.42845	9.6579	7.77924	9.5256	7.99092	7.83216
SPT(53)	11.837648	2.2039063	8.1143824	15.995017	2.2039063	2.888453	2.9719343	6.97221	6.00642	4.32621	3.51918	4.19391	3.54564	3.55887
SMR(54)	0	9.7172233	14.208517	36.013833	4.8586117	6.6451115	6.8955554	13.46814	11.47041	8.5005	7.09128	8.98317	7.5411	7.35588
TAR(55)	8.2479524	0	2.7381866	7.4131394	0.9850793	1.3857896	1.4358784	2.59308	2.15649	1.66698	1.40238	1.79928	1.50822	1.48176
PTK(56)	13.540667	3.0721118	0	32.541011	4.4579014	5.7268172	5.7435134	15.02928	11.10258	8.75826	8.63919	7.58079	8.50689	
MDN(61)	38.818805	9.4166906	36.798557	0	76.235123	99.426228	74.415231	57.90771	42.79905	40.27212	37.63935	75.38454	60.80508	42.34923
SBG(63)	4.3744201	1.0518644	4.2241538	63.712928	0	7.6468871	6.8621629	7.19712	5.27877	5.13324	4.78926	11.80116	8.58627	5.09355
LSM(64)	6.2610975	1.5360559	5.6600321	86.887337	7.9975085	0	21.120769	8.48043	6.45624	5.08735	5.31846	9.7902	7.81893	5.88735
BNA(65)	6.5616302	1.602841	5.7435134	65.766568	7.2461768	21.354517	0	8.58627	6.66792	5.09319	5.27877	9.53883	7.47495	5.70213
PG (71)	17.163755	3.8902286	20.102297	68.521451	10.201415	11.487027	11.487027	0	38.83005	44.29404	31.2228	23.19219	20.13606	19.96407
TJK(72)	14.37548	3.1889857	14.726101	49.788247	7.3463544	8.5985739	8.7822328	38.16855	0	27.17442	14.91021	15.876	12.9654	11.78793
LT (73)	10.501948	2.3875652	11.219887	45.614182	6.9623404	7.6301908	7.6802796	42.40215	26.46	0	17.78112	16.59042	13.56075	11.5101
JB (74)	8.4483076	1.9534624	9.8174009	41.590384	6.3278825	6.7285928	6.5950227	29.15892	14.1561	17.34453	0	15.49233	14.77791	14.77791
PD (75)	11.169798	2.6380091	11.286672	87.0543	16.312246	12.939602	12.45541	22.63653	15.77016	16.90794	16.19352	0	35.721	14.9499
PBR(76)	9.1495505	2.1538175	9.6504383	68.43797	11.553812	10.067845	9.5168682	19.14381	12.54204	13.46814	15.05574	34.82136	0	15.32034
SKN(77)	8.7822328	2.0703362	10.652214	46.883098	6.745289	7.4632282	7.1459993	18.68076	11.21904	11.25873	14.80437	14.34132	15.06897	0
AB (91)	9.7840084	2.2706914	4.558079	15.360559	2.0703362	2.888453	3.0721118	5.21262	4.56435	3.45303	2.79153	3.74409	3.08259	2.84445
TT (92)	5.7268172	1.4024858	2.571224	8.5985739	1.1520419	1.6195372	1.7197148	2.88414	2.48724	1.90512	1.54791	2.07711	1.7199	1.60083
SON(95)	4.6415603	1.1353457	2.2706914	7.9474198	1.0685606	1.5026634	1.602841	2.61954	2.27556	1.73313	1.41561	1.91835	1.57437	1.44207
JAP(96)	4.9754855	1.2021307	2.7047941	10.151326	1.3690933	1.9367662	2.0703362	3.24135	2.81799	2.16972	1.75959	2.42109	1.9845	1.79928
MRK(97)	2.0369437	0.4841915	1.1186494	4.2241538	0.5676728	0.8014205	0.8682055	1.36269	1.1907	0.91287	0.74088	1.01871	0.83349	0.75411
TOTAL	850.25704	188.95157	641.43692	2183.971	375.98308	475.47609	459.89848	1002.7943	1041.5185	679.99554	517.33269	654.68655	548.71425	476.28

Distributed Outgoing Traffic from Si to Sj (2014) [4/4]

AB (91)	TT (92)	SON(95)	JAP(96)	MRK(97)	TOTAL
108.25855	62.54419	58.236555	72.077754	33.509394	11412.779
14.993241	8.6152702	7.8305459	9.2163355	4.3076351	3228.2887
2.571224	1.4692709	1.3357008	1.5527522	0.7346354	555.55136
11.92113	6.7953778	6.1275274	7.062518	3.3058595	2125.0332
10.184719	5.776906	5.2259294	6.0607424	2.8383642	1833.266
7.6802796	4.3744201	3.9737099	4.624864	2.1705138	1476.8677
19.28418	10.885962	9.7172233	10.986139	5.1591443	2787.9415
8.2646487	4.6081678	4.1239762	4.6582565	2.2039063	1139.7702
8.6319664	4.8419154	4.3410276	4.942093	2.3374764	1388.4777
7.446532	4.2074575	3.790051	4.3410276	2.0369437	1284.9943
11.052924	6.0607424	5.4262845	6.0774386	2.888453	1197.8899
1.2522195	0.6678504	0.6010654	0.6511541	0.3172289	113.01698
5.0923593	2.4877427	2.2539951	2.3708689	1.1520419	297.47726
11.219887	5.1925369	4.9087004	5.3094107	2.6380091	556.26929
14.525746	7.9975085	6.6618077	6.7619853	3.1388969	990.6225
6.678504	3.790051	3.0721118	3.0554156	1.4024858	465.52512
14.876368	14.392176	7.7303684	6.1275274	2.6213128	558.70695
7.7637609	4.9587892	3.790051	3.6397847	1.6362335	491.70486
8.281345	4.4078126	3.4394296	3.1388969	1.4358784	368.41967
8.798929	5.1758406	4.4245089	4.7751304	2.2039063	920.46481
3.2891632	1.9534624	1.6863223	1.8532849	0.8515093	389.25661
10.334985	6.4447564	5.2259294	5.3594995	2.4042614	816.0464
2.0369437	1.3523971	1.0852569	1.1019532	0.4841915	153.70577
4.5747752	2.7548829	2.437654	2.7715792	1.2522195	578.07568
17.480984	10.435163	9.633742	11.770863	5.3594995	2260.874
1.9701587	1.1687382	1.0852569	1.3190045	0.6010654	321.48649
2.888453	1.7197148	1.602841	1.9701587	0.8849018	425.48749
3.0888081	1.8365886	1.7197148	2.120425	0.9683831	416.38803
7.0291255	4.1239762	3.7566585	4.4579014	2.05364	1205.3865
6.0440461	3.5062146	3.2056819	3.8067473	1.7698036	1207.2565
4.4579014	2.6046166	2.3875652	2.8550605	1.3190045	781.53523
3.5062146	2.0703362	1.8866774	2.2539951	1.0351681	584.10196
4.9253967	2.9051492	2.6714016	3.2557707	1.4859671	775.4411
3.9403174	2.3374764	2.1371213	2.5879203	1.1854345	633.67316
3.5896959	2.1371213	1.9367662	2.3040839	1.0518644	539.89026
0	7.3463544	7.0458217	4.8419154	2.1705138	353.91062
6.8955554	0	3.9403174	2.504439	1.0518644	198.35157
6.6284152	3.9403174	0	3.1889857	1.2689158	175.37752
4.7584341	2.6046166	3.339252	0	3.0888081	204.8965
1.9534624	1.0017756	1.218827	2.8216679	0	87.972594

Distributed Outgoing Traffic from Si to Sj (2019) [1/4]

Xeij	JKT(21)	BD (22)	CBN(23)	SM (24)	YK (27)	PWT(28)	SB (31)	JR (33)	ML (34)	MN (35)	DPR(36)	SBW(37)	END(38)	KP (39)
JKT(21)	0	2054.3058	287.42294	806.90076	684.71397	663.20335	886.03295	368.05706	432.54797	439.92304	407.45224	41.09554	112.06012	206.15375
BD (22)	1893.9185	0	87.435575	172.06592	148.32089	170.79437	163.11201	65.228414	80.121962	86.841472	68.75206	6.5761058	16.757802	30.053418
CBN(23)	238.09191	78.544516	0	37.899675	30.647521	41.689643	30.995789	12.004978	15.090411	17.085583	12.353246	1.1677197	2.9090562	5.1830367
SM (24)	719.23341	167.20927	40.767759	0	252.71913	151.27092	201.81065	69.735403	96.121771	135.47597	66.478079	5.9410302	14.033123	24.624546
YK (27)	600.82253	141.17117	32.470803	248.82673	0	135.53743	168.84818	61.786714	86.943904	125.15087	58.508904	5.1625504	12.127896	21.32625
PWT(28)	567.30692	158.4821	43.041739	145.18649	132.11622	0	102.94371	39.395176	51.195291	61.397474	39.518094	3.6260771	8.8705727	15.753973
SB (31)	822.42296	164.21827	34.744783	210.16906	178.59966	111.69137	0	196.70956	314.89509	200.33564	145.53475	11.451848	24.255792	41.341376
JR (33)	311.8836	59.942946	12.291787	66.314189	59.676624	39.026422	179.583	0	102.69788	56.829027	90.529008	5.6951945	11.021635	18.540111
ML (34)	369.73694	74.283364	15.590083	92.1884	84.710896	51.154319	289.98373	103.59927	0	96.756847	68.997896	5.2240093	10.980663	18.806434
MN (35)	371.94946	79.650777	17.433851	128.51083	120.58243	60.680453	182.47157	56.706109	95.712045	0	48.491098	4.0562896	9.1164084	15.815432
DPR(36)	353.61421	64.736743	12.947349	64.736743	57.873829	40.091711	136.07008	92.721044	70.042697	49.781736	0	10.284128	16.061268	26.222478
SBW(37)	32.081563	5.5722766	1.1062608	5.203523	4.5889337	3.3187824	9.6285662	5.2444956	4.7733105	3.7489949	9.2393263	0	2.171549	3.2368371
END(38)	86.554664	14.033123	2.7041931	12.168869	10.673368	8.0101476	20.179016	10.038292	9.9358608	8.3174423	14.299445	2.1305763	0	20.527284
KP (39)	172.26939	27.246794	5.2240093	23.067586	20.322421	15.38522	37.223627	18.294276	18.376221	15.631055	25.239135	3.4621866	22.207161	0
UP (41)	283.3052	47.016084	9.1983536	42.03791	36.09688	27.021444	71.763548	34.478461	34.089222	28.619376	47.507755	6.7399963	20.281448	30.299254
PRE(42)	125.00747	20.568256	4.015317	18.150872	15.528624	11.71817	30.360713	14.299445	14.360904	12.209841	19.113728	2.5607889	7.9896613	12.558109
MG (43)	169.38082	25.689834	4.9167146	21.141873	18.150872	14.115068	32.573235	14.99598	15.631055	13.766801	19.175187	2.3559258	8.5018191	15.835918
PAL(45)	141.60138	22.678346	4.3840706	19.359564	16.430021	12.640054	30.688494	13.971664	14.483822	12.66054	17.823091	2.1920353	6.9858321	12.004978
KDI(40)	104.23435	16.511967	3.1958645	14.115068	12.168869	9.2802989	22.780778	10.7758	10.93969	9.4032168	14.360904	1.9052269	7.6823666	12.926862
BJM(51)	286.05036	50.560216	10.16121	47.835536	38.98545	29.397856	80.285853	33.392687	35.482291	31.303083	38.821559	4.1177485	10.017806	16.901207
SPT(53)	124.82309	22.248134	4.4865021	20.404366	16.266131	12.640054	30.647521	12.2713	13.602911	12.640054	13.766801	1.4135555	3.5851044	6.1868659
SMR(54)	248.51944	40.767759	7.9486887	35.093051	29.350884	22.719319	55.08769	24.337737	25.587402	22.678346	30.012446	3.5031592	10.079265	17.331419
TAR(55)	47.057056	7.4365309	1.4340418	6.1049207	5.1420641	4.0358033	9.1983536	4.0767759	4.3226116	3.8923991	4.9986599	0.5736167	1.7618227	3.1344056
PTK(56)	211.43922	35.625695	6.8219416	26.816581	21.776949	18.171358	34.92916	14.38139	16.266131	15.682514	16.286617	1.7003638	4.60942	8.2764697
MDN(61)	798.49494	120.95118	21.71549	81.863299	70.022211	58.980089	107	46.340036	51.809881	49.228605	54.042888	5.7566534	16.696343	31.077734
SBG(63)	94.85162	14.545281	2.6017615	9.6490525	8.2559833	7.0063184	12.476163	5.3878998	6.0434618	5.7771397	6.2483249	0.655562	1.9052269	3.5441318
LSM(64)	125.5606	18.683516	3.359755	12.824431	11.001149	9.1983536	16.942179	7.375072	8.2150107	7.7643119	8.6452233	0.921884	2.7246794	5.0806051
BNA(65)	132.444	19.502968	3.5236455	13.418534	11.533793	9.6285662	17.802604	7.7847982	8.6452233	8.1535518	9.157381	0.9833429	2.8885699	5.4288724
PG (71)	497.98125	81.105305	14.033123	47.548728	39.804902	35.584722	56.357842	23.415853	27.103389	26.898526	26.181505	2.6632204	7.2521541	13.193184
TJK(72)	636.32531	100.52633	15.672028	47.876509	40.624355	38.268429	53.36684	22.043271	25.956156	26.365882	24.235306	2.4173847	6.4327017	11.697684
LT (73)	315.81697	51.338695	8.6861959	29.37737	24.931841	22.309593	34.949647	14.688685	16.942179	16.757802	16.49148	1.6798775	4.60942	8.4198738
JB (74)	210.29198	33.843386	5.9615165	21.1009	17.782118	15.528624	25.915183	10.919204	12.476163	12.189355	12.373732	1.2701513	3.5441318	6.4736743
PD (75)	260.87268	40.911163	7.2111815	26.263451	22.452997	19.277619	33.249283	14.258472	16.122727	15.528624	16.389049	1.7208501	4.875742	9.0139768
PBR(76)	207.69022	32.634693	5.7771397	21.121387	17.966495	15.405706	26.755122	11.431362	12.926862	12.455677	13.131725	1.3725828	3.8923991	7.1702089
SKN(77)	187.38829	29.869041	5.3674135	19.728318	16.573426	14.197014	24.952327	10.55045	11.964006	11.554279	12.066437	1.2701513	3.5441318	6.4941606
AB (91)	106.93854	16.061268	3.0524603	13.213671	11.472334	8.8705727	20.527284	9.6490525	9.9768335	8.7066822	12.578595	1.5979323	6.5146469	13.27513
TT (92)	57.97626	8.6657096	1.6389049	7.0677773	6.1049207	4.7528242	10.857745	5.0396325	5.2444956	4.60942	6.4736743	0.7989661	2.9910014	5.7566534
SON(95)	54.042888	7.8872297	1.4955007	6.3712427	5.531304	4.3021253	9.7105114	4.5069884	4.7118515	4.158721	5.797626	0.7170209	2.7041931	5.4493587
JAP(96)	69.858321	9.6900251	1.8232817	7.6823666	6.6785374	5.2444956	11.472334	5.3264409	5.6132492	4.9781736	6.7809689	0.8194524	2.9705151	6.1458933
MRK(97)	29.684665	4.1382348	0.7784798	3.2778098	2.8680835	2.2534942	4.937201	2.2944668	2.4173847	2.1510627	2.9500288	0.3482673	1.3111239	2.7861383
TOTAL	12067.523	3968.854	752.44172	2633.6792	2309.0531	1924.4021	3274.4795	1477.5137	1789.3973	1677.4191	1510.804	157.92897	418.92457	724.04769

Distributed Outgoing Traffic from Si to Sj (2019) [2/4]

UP (41)	PRE(42)	NO (43)	PAL(45)	KDI(40)	BJN(51)	SPT(53)
327.41222	157.02757	201.70822	174.80969	131.95233	337.90121	162.00575
50.08903	23.805093	28.20965	25.812752	19.277619	55.067204	26.611718
8.8091137	4.1792074	4.8347694	4.4865021	3.3392687	9.9563472	4.8142831
43.287575	20.322421	22.432511	21.285277	15.917864	50.375839	23.60023
36.609038	17.10607	18.970324	17.762118	13.520965	40.419492	18.519625
26.71415	12.599081	14.38139	13.357075	10.058779	29.705151	14.033123
76.987557	35.400345	35.994448	35.15451	26.775609	88.050165	36.936819
33.761441	15.221329	15.118898	14.627226	11.554279	33.43366	13.479993
33.679495	15.426192	15.897377	15.282788	11.841088	35.830558	15.098411
27.963815	12.967835	13.848746	13.213671	10.079265	31.262111	13.869233
47.651159	20.834578	19.830749	19.093242	15.774459	39.784416	15.487651
6.0639481	2.4993299	2.1920353	2.11009	1.8847406	3.7899675	1.4340418
18.089413	7.7438256	7.8052845	6.6580511	7.5184761	9.1368947	3.5851044
29.254452	13.193184	15.753973	12.394218	13.664369	16.675857	6.6990237
0	65.392305	27.349225	30.913843	29.131534	39.866361	14.442849
60.168295	0	13.336588	17.065097	14.299445	18.007467	6.5351332
26.529773	14.053609	0	20.076585	16.10224	17.700173	7.2931267
28.926671	17.372392	19.38005	0	13.541452	19.421023	7.5184761
26.611718	14.176527	15.139384	13.213671	0	12.250814	4.7733105
39.005936	19.154701	17.843577	20.301934	13.111239	0	29.315911
12.865403	6.3302701	6.6990237	7.1497225	4.6503926	26.673177	0
40.767759	22.452997	23.661689	35.461804	15.93835	41.402835	16.040782
6.2483249	3.3392687	5.0396325	5.469845	2.765652	5.8385986	2.5198163
15.036952	7.4365309	9.3212715	8.891059	5.9615165	18.724488	10.468505
49.269578	24.132874	33.966304	28.516945	20.773119	48.777907	23.354395
5.6132492	2.7451657	3.8104538	3.2163508	2.3559258	5.5927629	2.6837067
7.969175	3.9128854	5.5927629	4.6299063	3.3802413	7.7643119	3.687536
8.4403601	4.1382348	5.9410302	4.8962283	3.6055907	8.1125792	3.8309402
21.981812	10.652882	13.582424	12.108869	8.8091137	24.009957	12.045951
19.21616	9.21884	11.472334	10.304614	7.6004214	20.752633	10.202183
13.725828	6.6375648	8.5427917	7.5389625	5.531304	14.545281	7.1497225
10.693854	5.203523	6.8219416	6.0229754	4.3430979	11.431362	5.6747082
14.38139	7.0063184	9.485162	8.1330655	5.9615165	14.60674	7.0677773
11.595252	5.6542218	7.641394	6.6170785	4.7937968	11.943519	5.8181123
10.796286	5.2854682	7.0677773	6.2278386	4.4250432	11.533793	5.7566534
16.593912	8.2764697	17.49531	9.4646757	10.366073	10.263642	4.2201801
8.563278	4.4045569	15.897377	5.6747082	5.1830367	5.6747082	2.3559258
7.1497225	3.5851044	8.5427917	4.3226116	4.0358033	4.8552557	2.0281448
7.5594488	3.7285086	7.0677773	4.3635842	3.8514265	5.469845	2.3354395
3.2163508	1.5569596	2.765652	1.7823091	1.6184186	2.2944668	0.9833429
1239.2989	634.17424	720.4421	658.4915	505.29486	1188.9026	554.27763

Distributed Outgoing Traffic from Si to Sj (2019) [3/4]

Xeij	SMR(54)	TAR(55)	PTK(56)	MDN(61)	SBG(63)	LSM(64)	BNA(65)	PG (71)	TJK(72)	LT (73)	JB (74)	PD (75)	PBR(76)	SKN(77)
JKT(21)	292.19625	65.166955	260.83171	871.09843	123.83975	156.74077	163.52173	579.43482	753.2202	383.93395	262.0404	311.04366	254.07123	232.97033
BD (22)	44.188973	9.485162	40.521923	121.64771	17.49531	21.510627	22.186675	87.005363	109.72468	57.525561	38.883018	44.967453	36.813901	34.232626
CBN(23)	7.7438256	1.6389049	6.9653457	19.625886	2.8066246	3.4826729	3.5851044	13.520965	15.38522	8.7476548	6.1458933	7.1292362	5.859085	5.531304
SM (24)	36.772928	7.5389625	29.479802	79.609805	11.226498	14.258472	14.77063	49.310551	50.519243	31.835727	23.43634	27.902356	23.0471	21.858894
YK (27)	30.299254	6.2483249	23.579744	67.03121	9.4646757	12.045951	12.49665	40.644841	42.181314	26.611718	19.441509	23.497799	19.277619	18.068926
PWT(28)	22.842237	4.7937968	19.175187	55.026231	7.8257708	9.8334293	10.181697	35.400345	38.7601	23.190504	16.532453	19.646372	16.122727	15.098411
SB (31)	60.106837	11.841088	40.009765	108.3521	15.118898	19.625886	20.404366	60.86483	58.652308	39.436149	29.991959	36.793415	30.381199	28.803753
JR (33)	24.255792	4.7733105	15.016466	42.836876	5.9615165	7.8052845	8.1330655	23.088073	22.10473	15.118898	11.533793	14.401877	11.841088	11.124067
ML (34)	25.730807	5.1215778	17.167529	48.327208	6.7604826	8.7681411	9.1164084	26.959985	26.263451	17.618227	13.295616	16.430021	13.520965	12.721999
MN (35)	22.534942	4.547961	16.368563	45.397665	6.3712427	8.1945244	8.5018191	26.447828	26.406855	17.228988	12.844917	15.651542	12.88589	12.148382
DPR(36)	30.627035	6.0024891	17.433851	51.154319	7.0882636	9.3622441	9.812943	26.447828	24.890868	17.392878	13.377561	16.962666	13.930691	13.029294
SBW(37)	3.1958645	0.6145893	1.6389049	4.8962283	0.6760483	0.9013977	0.9423703	2.4173847	2.2330079	1.5979323	1.249665	1.5979323	1.3111239	1.2291787
END(38)	9.157381	1.8847406	4.4045569	14.074096	1.9257132	2.6222478	2.765652	6.5146469	5.8795713	4.3226116	3.4007276	4.4865021	3.6670497	3.4007276
XP (39)	17.024124	3.6260771	8.5223054	28.332588	3.8719128	5.3059546	5.6132492	12.844917	11.574766	8.5427917	6.7399963	8.9730042	7.3340993	6.7399963
UP (41)	41.464294	7.4979898	16.061268	46.524412	6.3507564	8.6042506	9.0139768	22.125216	19.687345	14.422363	11.513307	14.832089	12.2713	11.615738
PRE(42)	21.018955	3.687536	7.313613	20.957496	2.8475972	3.8719128	4.0562896	9.8539156	8.7066822	6.4122153	5.1625504	6.6375648	5.5108177	5.2240093
MO (43)	23.354395	5.859085	9.6695388	31.09822	4.1587211	5.859085	6.1663796	13.27513	11.410875	8.7066822	7.1292362	9.485162	7.8667434	7.375072
PAL(45)	33.761441	6.1458933	8.891059	25.198163	3.4007276	4.6913652	4.8962283	11.472334	9.8744019	7.4365309	6.0844344	7.8462571	6.5556195	6.2688112
KDI(40)	14.791117	3.031974	5.8181123	17.905036	2.4173847	3.3392687	3.5236455	8.0920929	7.1087499	5.3059546	4.281639	5.6132492	4.6299063	4.3430979
BJM(51)	41.218458	8.4424279	19.564427	45.049398	6.1868659	8.1945244	8.4813328	23.641203	20.793606	14.955007	12.045951	14.750144	12.373732	12.127896
SPT(53)	14.524795	2.7041931	9.9563472	19.625886	2.7041931	3.5441318	3.6465634	10.796286	9.3007852	6.6990237	5.4493587	6.4941606	5.4903314	5.5108177
SMR(54)	0	11.923033	17.433851	44.188973	5.9615165	8.1535518	8.4608465	20.855065	17.761632	13.316102	10.980663	13.910205	11.677197	11.390389
TAR(55)	10.120238	0	3.359755	9.0959221	1.2086924	1.7003638	1.7618227	4.015317	3.3392687	2.5812752	2.171549	2.7861383	2.3354395	2.2944668
PTK(56)	16.614308	3.7694812	0	39.92782	5.469845	7.0268047	7.047291	23.272449	17.331419	13.561938	12.168869	13.377561	11.738656	13.172698
MDN(61)	47.630673	11.554279	45.151829	0	93.540496	121.99508	91.307488	89.668583	66.273216	62.360331	58.283555	116.731	94.155085	65.576682
SBG(63)	5.3674135	1.2906376	5.1830367	78.175763	0	9.3827304	8.4198738	11.144553	8.1740381	7.9486887	7.4160446	18.273789	13.295616	7.8872297
LSM(64)	7.6823666	1.8847406	6.9448594	106.61076	9.812943	0	25.915183	13.131725	9.9973198	9.1164084	8.235497	15.15987	12.10741	9.1164084
BNA(65)	8.0511202	1.9666859	7.047291	80.695579	8.891059	26.201992	0	13.295616	10.325101	9.2802989	8.1740381	14.77063	11.574766	8.8296
PG (71)	21.059928	4.7733105	24.665518	84.07582	12.517136	14.094582	14.094582	0	60.127323	68.588169	48.347694	35.912503	31.180165	30.913843
TJK(72)	17.638714	3.9128854	18.068926	61.090179	9.0139768	10.55045	10.7758	59.103007	0	42.078883	23.088073	24.583573	20.076585	18.253303
LT (73)	12.88589	2.9295425	13.766801	55.968602	8.5427917	9.3622441	9.4237031	65.658627	40.972622	0	27.533602	25.689834	20.998469	17.823091
JB (74)	10.366073	2.3968984	12.045951	51.031461	7.7643119	8.2559833	8.0920929	45.151829	21.920353	26.857554	0	23.98947	22.883209	22.883209
PD (75)	13.705342	3.2368371	13.848746	106.81563	20.015126	15.876891	15.282788	35.052078	24.419683	26.181505	25.075245	0	55.31304	23.149531
PBR(76)	11.226498	2.6427341	11.841088	83.973389	14.176527	12.353246	11.677197	29.643692	19.421023	20.855065	23.313422	53.919971	0	23.723148
SKN(77)	10.7758	2.5403026	13.070266	57.525561	8.2764697	9.157381	8.7681411	28.926671	17.372392	17.433851	22.924182	22.207161	23.333908	0
AB (91)	12.004978	2.7861383	5.5927629	18.847406	2.5403026	3.5441318	3.7694812	8.0716065	7.0677773	5.3469272	4.3226116	5.797626	4.7733105	4.4045569
TT (92)	7.0268047	1.7208501	3.1548919	10.55045	1.4135555	1.9871722	2.11009	4.4060158	3.8514265	2.9500288	2.3968984	3.2163508	2.6632204	2.4788436
SOK(95)	5.6951945	1.3930691	2.7861383	9.751484	1.3111239	1.843768	1.9666859	4.0562896	3.5236455	2.6837067	2.1920353	2.9705151	2.437871	2.2330079
JAP(96)	6.1049207	1.4750144	3.3187824	12.455677	1.6798775	2.3764121	2.5403026	5.0191462	4.3635842	3.359755	2.7246794	3.7489949	3.0729467	2.7861383
MRK(97)	2.4993299	0.594103	1.3725828	5.1830367	0.6965346	0.9833429	1.0652882	2.11009	1.843768	1.4135555	1.1472334	1.5774459	1.2906376	1.1677197
	1043.2654	231.84358	787.0431	2679.7324	461.33124	583.40917	564.29544	1552.8009	1612.7643	1052.9554	801.07622	1013.7651	849.66975	737.5072

Distributed Outgoing Traffic from Si to Sj (2019) [4/4]

AB (91)	TT (92)	SON(95)	JAP(96)	MRK(97)	TOTAL
132.83324	76.741721	71.456253	88.439405	41.116026	14003.479
18.396707	10.570936	9.6080799	11.308444	5.2854682	3961.1102
3.1548919	1.8027954	1.6389049	1.9052269	0.9013977	681.66151
14.627226	8.3379286	7.5184761	8.6657096	4.0562896	2607.4157
12.49665	7.0882636	6.4122153	7.4305309	3.4826729	2249.4174
9.4237031	5.3674135	4.875742	5.6747082	2.6632204	1812.1166
23.661689	13.357075	11.923033	13.479993	6.3302701	3420.8042
10.140724	5.6542218	5.0601188	5.7156808	2.7041931	1398.498
10.591423	5.9410302	5.3264409	6.0639481	2.8680835	1703.6621
9.1368947	5.1625504	4.6503926	5.3264409	2.4993299	1576.688
13.561938	7.4365309	6.6580511	7.4570172	3.5441318	1469.8109
1.5364733	0.8194524	0.7375072	0.7989661	0.3892399	138.67184
6.2483249	3.0524603	2.765652	2.9090562	1.4135555	365.0046
13.766801	6.3712427	6.0229754	6.5146469	3.2368371	682.54242
17.823091	9.812943	8.1740381	8.296956	3.8514265	1215.4938
8.1945244	4.6503926	3.7694812	3.7489949	1.7208501	571.19932
18.253303	17.6592	9.485162	7.5184761	3.2163508	685.53343
9.5261346	6.0844344	4.6503926	4.4660158	2.0076585	603.32186
10.16121	5.4083861	4.2201801	3.8514265	1.7618227	452.05094
10.796286	6.3507564	5.4288724	5.859085	2.7041931	1129.4103
4.0358033	2.3968984	2.0691174	2.2739805	1.0448019	477.61786
12.681027	7.9077161	6.4122153	6.5761058	2.9500288	1001.2889
2.4993299	1.6593912	1.3316102	1.3520965	0.594103	188.59698
5.6132492	3.3802413	2.9910014	3.4007276	1.5364733	710.03505
21.449168	12.803944	11.820601	14.442849	6.5761058	2774.0923
2.4173847	1.4340418	1.3316102	1.6184186	0.7375072	394.46392
3.5441318	2.11009	1.9666859	2.4173847	1.0857745	522.07315
3.7899675	2.2534942	2.11009	2.6017615	1.188206	510.90811
8.6247369	5.0601188	4.60942	5.469845	2.5198163	1479.0092
7.4160446	4.3021253	3.9333717	4.6708789	2.171549	1481.3037
5.469845	3.1958645	2.9295425	3.5031592	1.6184186	958.94373
4.3021253	2.5403026	2.3149531	2.765652	1.2701513	716.6931
6.0434618	3.5046181	3.2778098	3.9948306	1.8232817	951.46623
4.8347694	2.8680835	2.6222478	3.1753782	1.4545281	777.51696
4.4045569	2.6222478	2.3764121	2.8271109	1.2906376	662.44535
0	9.0139768	8.6452233	5.9410302	2.6632204	434.24833
8.4608465	0	4.8347694	3.0729467	1.2906376	243.37737
8.1330655	4.8347694	0	3.9128854	1.5569596	215.18821
5.8385986	3.1958645	4.0972622	0	3.7899675	251.40801
2.3968984	1.2201787	1.4955007	3.4621866	0	107.94237
476.28624	284.0427	251.55141	282.91596	132.91519	55586.512

ANNEX III

CIRCUITS MATRIX BETWEEN SC's

Circuits Requirement in 1994 (1/2)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
96	FILE: CCTMTX94.ORG																								
97	TITLE: CIRCUIT MATRIX 1994																								
98																									
99																									
100		JKT(21)	BD (22)	CBN(23)	SM (24)	YK (27)	PWT(28)	SB (31)	JR (33)	ML (34)	MN (35)	DPR(36)	SBW(37)	END(38)	KP (39)	UP (41)	PRE(42)	MD (43)	PAL(45)	KDI(40)	BJM(51)	SPT(53)	SMR(54)	TAR(55)	PTK(56)
101	JKT(21)	0	1349	108	452	369	246	1172	0	0	193	0	0	0	0	396	7	27	5	42	427	4	33	0	14
102	BD (22)	1314	0	17	45	38	30	86	0	0	15	18	0	0	0	15	0	0	0	0	15	0	0	0	0
103	CBN(23)	110	17	0	9	0	8	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	SM (24)	447	45	9	0	49	24	102	0	0	28	0	0	0	0	23	0	0	0	0	6	0	0	0	0
105	YK (27)	365	38	0	49	0	21	79	0	0	26	14	0	0	0	8	0	0	0	0	16	0	0	0	0
106	PWT(28)	240	30	8	24	21	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	SB (31)	1168	72	17	83	70	37	0	149	229	129	246	60	67	142	63	4	37	20	14	65	0	48	0	11
108	JR (33)	0	0	0	0	0	0	149	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0
109	ML (34)	20	0	0	15	14	0	203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	MN (35)	219	0	0	28	26	12	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111	DPR(36)	10	18	0	15	14	0	230	11	0	0	0	6	0	0	21	0	0	0	0	14	0	0	0	0
112	SBW(37)	0	0	0	0	0	0	60	0	0	0	6	0	0	0	4	0	0	0	0	2	0	0	0	0
113	END(38)	0	0	0	0	0	0	64	0	0	0	0	0	0	6	6	0	0	0	0	4	0	0	0	0
114	KP (39)	0	0	0	0	0	0	137	0	0	0	0	0	6	0	12	0	0	0	0	9	0	0	0	0
115	UP (41)	398	8	0	18	0	0	72	0	4	0	17	0	0	14	0	91	174	90	25	33	0	12	0	0
116	PRE(42)	0	0	0	0	0	0	7	0	0	0	0	0	0	0	92	0	0	0	0	0	0	0	0	0
117	MD (43)	27	0	0	0	0	0	22	0	0	0	0	0	0	0	180	0	0	8	0	8	0	11	0	0
118	PAL(45)	16	0	0	0	0	0	25	0	0	0	0	0	0	0	78	0	8	0	0	5	0	9	0	0
119	KDI(40)	48	0	0	0	0	0	17	0	0	0	0	0	0	0	17	0	0	0	0	3	0	5	0	0
120	BJM(51)	427	0	0	0	11	0	81	0	0	0	10	0	0	0	32	0	0	0	0	0	56	188	0	134
121	SPT(53)	11	0	0	0	0	0	8	0	0	0	0	0	0	0	5	0	0	0	0	48	0	0	0	0
122	SMR(54)	33	0	0	0	0	0	24	0	0	0	0	0	0	0	19	0	11	9	5	201	0	0	0	0
123	TAR(55)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	PTK(56)	21	0	0	0	0	0	13	0	0	0	0	0	0	0	8	0	0	0	0	124	0	0	0	0
125	MDN(61)	663	14	0	0	0	0	107	0	0	0	0	0	0	0	49	0	0	0	0	49	0	0	0	0
126	SBG(63)	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	LSM(64)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	BNA(65)	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129	PG (71)	340	0	0	0	0	0	112	0	0	0	0	0	0	0	46	0	0	0	0	51	0	0	0	0
130	TJK(72)	257	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	LT (73)	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	JB (74)	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	PD (75)	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	PBR(76)	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	SKN(77)	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	AB (91)	58	0	0	0	0	0	19	0	0	0	0	0	0	0	14	0	0	0	0	11	0	0	0	0
137	TT (92)	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
138	SON(95)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	JAP(96)	61	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	MRK(97)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	TOTAL	6693	1591	159	738	612	378	2979	160	233	391	322	66	73	162	1088	102	262	132	86	1091	60	306	0	159
142	SAT	44	11	0	8	7	0	18	0	0	0	7	4	4	6	12	0	9	5	4	6	4	8	20	5
143	G.TOTAL	6737	1602	159	746	619	378	2997	160	233	391	329	70	77	168	1100	102	271	137	90	1097	64	314	20	164

Circuits Requirement in 1994 (2/2)

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
96																				FILE: CCT
97																				TITLE: CI
98																				
99																				
100	MDH(61)	SBG(63)	LSH(64)	BNA(65)	PG (71)	TJK(72)	LT (73)	JB (74)	PD (75)	PBR(76)	SKN(77)	AB (91)	TT (92)	SDN(95)	JAP(96)	MRK(97)	TOTAL	SAT	G.TOTAL	
101	663	17	0	13	342	257	98	49	148	59	41	57	16	0	61	0	6665	42	6707	JKT(21)
102	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1606	11	1617	BD (22)
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	3	157	CBN(23)
104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	733	8	741	SM (24)
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	616	7	623	YK (27)
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	374	0	374	PWT(28)
107	107	0	0	0	112	0	0	0	0	0	0	19	0	0	10	0	2979	18	2997	SB (31)
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	0	160	JR (33)
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	252	0	252	ML (34)
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	404	0	404	MR (35)
111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	339	7	346	DPR(36)
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	3	75	SBW(37)
113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	4	84	END(38)
114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	164	6	170	KP (39)
115	49	0	0	0	46	0	0	0	0	0	0	14	0	0	0	0	1065	12	1077	UP (41)
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	0	99	PRE(42)
117	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	261	9	270	MD (43)
118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	141	6	147	PAL(45)
119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	4	94	KDI(40)
120	49	0	0	0	50	0	0	0	0	0	0	10	0	0	0	0	1048	7	1055	BJM(51)
121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	3	75	SPT(53)
122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	302	8	310	SMR(54)
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20	TAR(55)
124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	166	5	171	PTK(56)
125	0	35	173	75	57	0	0	0	38	20	14	10	0	0	0	0	1304	16	1320	MDH(61)
126	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	0	52	SBG(63)
127	173	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	181	0	181	LSH(64)
128	75	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	95	4	99	BNA(65)
129	57	0	0	0	0	58	37	39	70	40	35	11	0	0	0	0	896	10	906	PG (71)
130	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	0	315	5	320	TJK(72)
131	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	135	0	135	LT (73)
132	0	0	0	0	39	0	0	0	0	0	0	0	0	0	0	0	88	4	92	JB (74)
133	38	0	0	0	70	0	0	0	0	9	5	0	0	0	0	0	270	5	275	PD (75)
134	20	0	0	0	40	0	0	0	9	0	4	0	0	0	0	0	132	4	136	PBR(76)
135	14	0	0	0	35	0	0	0	5	4	0	0	0	0	0	0	99	3	102	SKN(77)
136	11	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	123	6	129	AB (91)
137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	13	34	TT (92)
138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	37	SDN(95)
139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	38	109	JAP(96)
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	MRK(97)
141	1304	52	181	96	896	315	135	88	270	132	99	121	21	0	71	0	21624	343	21967	TOTAL
142	17	0	0	5	10	5	0	3	5	4	3	6	13	37	38	15	343			SAT
143	1321	52	181	101	906	320	135	91	275	136	102	127	34	37	109	15	21967			G.TOTAL

Circuits Requirement in 1999 (1/2)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
96	FILE: CCTMTX99.ORG																							
97	TITLE: CIRCUIT MATRIX 1999																							
98																								
99																								
100		JKT(21)	BD (22)	CBN(23)	SH (24)	YK (27)	PWT(28)	SB (31)	JR (33)	ML (34)	MN (35)	DPR(36)	SBW(37)	END(38)	KP (39)	UP (41)	PRE(42)	MO (43)	PAL(45)	KDT(40)	BJM(51)	SPT(53)	SMR(54)	TAR(55)
101	JKT(21)	0	2058	176	693	601	375	1706	0	0	257	0	0	0	0	602	13	56	7	60	636	6	55	0
102	BD (22)	2023	0	33	89	75	57	200	0	0	30	31	0	0	0	25	0	0	0	0	26	0	0	0
103	CBN(23)	182	33	0	16	0	12	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	SH (24)	682	89	16	0	101	43	204	0	0	50	0	0	0	0	41	0	0	0	0	30	0	15	0
105	YK (27)	593	75	0	101	0	39	159	0	0	46	23	0	0	0	12	0	0	0	0	26	0	0	0
106	PWT(28)	363	57	12	43	39	0	93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	SB (31)	1686	176	28	168	143	67	0	258	382	248	396	101	93	257	116	6	72	33	22	121	0	95	0
108	JR (33)	0	0	0	0	0	0	258	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0
109	ML (34)	21	15	0	25	23	0	331	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	MN (35)	275	30	0	50	46	19	230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111	DPR(36)	16	31	0	26	23	0	365	17	0	0	0	9	0	0	33	0	0	0	0	21	0	0	0
112	SBW(37)	0	0	0	0	0	0	99	0	0	0	9	0	4	0	5	0	0	0	0	3	0	0	0
113	END(38)	0	0	0	0	0	0	88	0	0	0	0	4	0	9	9	0	0	0	0	4	0	0	0
114	KP (39)	0	0	0	0	0	0	245	0	0	0	0	0	9	0	22	0	0	0	0	16	0	0	0
115	UP (41)	607	12	0	32	0	0	139	0	7	0	26	0	0	23	0	149	309	148	51	55	0	23	0
116	PRE(42)	0	0	0	0	0	0	11	0	0	0	0	0	0	0	151	0	0	0	0	0	0	0	0
117	MO (43)	56	0	0	0	0	0	42	0	0	0	0	0	0	0	323	0	0	13	0	11	0	22	0
118	PAL(45)	27	0	0	0	0	0	42	0	0	0	0	0	0	0	123	0	13	0	0	8	0	16	0
119	KDT(40)	72	0	0	0	0	0	29	0	0	0	0	0	0	0	34	0	0	0	0	5	0	8	0
120	BJM(51)	636	0	0	22	19	0	160	0	0	0	15	0	0	0	52	0	0	0	0	0	100	322	0
121	SPT(53)	19	0	0	0	0	0	13	0	0	0	0	0	0	0	8	0	0	0	0	80	0	0	0
122	SMR(54)	55	0	0	15	0	0	46	0	0	0	0	0	0	0	34	0	22	16	8	355	0	0	0
123	TAR(55)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	PTK(56)	40	0	0	0	0	0	22	0	0	0	0	0	0	0	15	0	0	0	0	206	0	0	0
125	MDN(61)	1035	20	0	0	0	0	209	0	0	0	0	0	0	0	93	0	0	0	0	92	0	0	0
126	SBG(63)	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	LSM(64)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	BNA(65)	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129	PG (71)	490	0	0	0	0	0	194	0	0	0	0	0	0	0	85	0	0	0	0	91	0	0	0
130	TJK(72)	370	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	LT (73)	154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	JB (74)	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	PD (75)	226	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	PBR(76)	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	SKN(77)	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	AB (91)	207	0	0	0	0	0	63	0	0	0	0	0	0	0	45	0	0	0	0	29	0	0	0
137	TT (92)	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0
138	SQN(95)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	JAP(96)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	MRK(97)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	TOTAL	10149	2596	265	1280	1070	612	4993	275	389	631	517	114	106	289	1828	168	479	217	141	1815	106	556	0
142	SAT	31	8	0	6	5	0	16	0	0	0	6	3	4	5	10	0	5	4	4	5	3	7	29
143	G.TOTAL	10180	2604	265	1286	1075	612	5009	275	389	631	523	117	110	294	1838	168	484	221	145	1820	109	563	29

Circuits Requirement in 1999 (2/2)

	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
96																					FILE: CCTM
97																					TITLE: CIR
98																					
99																					
100	PTK(56)	MDN(61)	SBG(63)	LSM(64)	BNA(65)	PG (71)	TJK(72)	LT (73)	JB (74)	PD (75)	PBR(76)	SKN(77)	AB (91)	TT (92)	SDN(95)	JAP(96)	MRK(97)	TOTAL	SAT	G.TOTAL	
101	26	1035	27	0	20	490	370	154	80	226	96	71	207	21	0	0	0	10124	30	10154	JKT(21)
102	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2609	8	2617	BD (22)
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	260	3	263	CBN(23)
104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1271	6	1277	SM (24)
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1074	5	1079	YK (27)
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	607	0	607	PWT(28)
107	19	209	0	0	0	194	28	0	0	0	0	0	63	0	0	0	0	4981	16	4997	SB (31)
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	275	0	275	JR (33)
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	415	0	415	ML (34)
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	650	0	650	MN (35)
111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	541	5	546	DPR(36)
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	3	123	SBW(37)
113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	3	117	END(38)
114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	292	5	297	KP (39)
115	0	93	0	0	0	85	0	0	0	0	0	0	45	0	0	0	0	1804	10	1814	UP (41)
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	162	0	162	PRE(42)
117	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	474	5	479	MD (43)
118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	229	4	233	PAL(45)
119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148	3	151	KDI(40)
120	228	92	0	0	0	91	0	0	0	0	0	0	29	0	0	0	0	1766	6	1772	BJM(51)
121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	4	124	SPY(53)
122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	551	7	558	SMR(54)
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	29	TAR(55)
124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	283	4	287	PTK(56)
125	0	0	60	256	130	107	0	0	0	69	35	24	32	0	0	0	0	2162	12	2174	MDN(61)
126	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	87	0	87	SBG(63)
127	0	256	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	268	0	268	LSM(64)
128	0	130	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	162	4	166	BNA(65)
129	0	107	0	0	0	0	95	75	63	118	65	57	28	0	0	0	0	1468	7	1475	PG (71)
130	0	0	0	0	0	95	0	0	0	0	0	0	0	0	0	0	0	493	4	497	TJK(72)
131	0	0	0	0	0	75	0	0	0	0	0	0	0	0	0	0	0	229	0	229	LT (73)
132	0	0	0	0	0	63	0	0	0	8	0	0	0	0	0	0	0	151	4	155	JB (74)
133	0	69	0	0	0	118	0	0	8	0	15	8	0	0	0	0	0	444	4	448	PD (75)
134	0	35	0	0	0	65	0	0	0	15	0	6	0	0	0	0	0	216	4	220	PBR(76)
135	0	24	0	0	0	57	0	0	0	8	4	0	0	0	0	0	0	166	3	169	SKN(77)
136	0	32	0	0	0	28	0	0	0	0	0	0	0	0	63	161	0	628	4	632	AB (91)
137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	23	51	TT (92)
138	0	0	0	0	0	0	0	0	0	0	0	0	63	0	0	0	0	63	3	66	SDN(95)
139	0	0	0	0	0	0	0	0	0	0	0	0	161	0	0	0	0	161	6	167	JAP(96)
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	26	MRK(97)
141	273	2162	87	268	162	1468	493	229	151	444	217	166	628	28	63	161	0	35596	260	35856	TOTAL
142	4	12	0	0	3	7	4	0	4	4	3	3	4	22	3	5	25	254			SAT
143	277	2174	87	268	165	1475	497	229	155	448	220	169	632	50	66	166	25	35850			G.TOTAL

Circuits Requirement in 2004 (1/2)

FILE: CCTNTX20.ORG
TITLE: CIRCUIT MATRIX 2004

		JKT(21)	BD (22)	CBN(23)	SM (24)	YK (27)	PWT(28)	SB (31)	JR (33)	ML (34)	MN (35)	DPR(36)	SBW(37)	END(38)	KP (39)	UP (41)	PRE(42)	MD (43)	PAL(45)	KDI(40)	BJM(51)	SPT(53)	SMR(54)	TAR(55)	PTK(56)
101	JKT(21)	0	2825	254	964	822	525	2325	0	0	333	0	0	0	0	797	16	47	10	78	860	8	44	0	39
102	BD (22)	2772	0	51	139	119	87	313	0	0	47	45	0	0	0	59	0	16	0	0	64	0	27	0	0
103	CBN(23)	246	51	0	23	0	17	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	SM (24)	947	139	23	0	159	65	323	0	0	73	0	0	0	0	60	0	17	0	0	43	0	26	0	0
105	YK (27)	808	119	0	159	0	59	253	0	0	68	33	0	0	0	38	0	15	0	0	37	0	22	0	0
106	PWT(28)	507	87	17	65	59	0	124	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	SB (31)	2311	279	42	267	228	100	0	384	562	346	571	147	122	389	175	7	110	47	31	186	9	149	0	27
108	JR (33)	0	0	0	0	0	0	384	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0
109	ML (34)	28	24	0	36	33	0	480	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	MN (35)	356	47	0	73	60	26	334	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111	DPR(36)	22	45	0	37	33	0	521	24	0	0	0	12	0	0	47	0	0	0	0	29	0	0	0	0
112	SBW(37)	0	0	0	0	0	0	144	0	0	0	12	0	4	0	8	0	0	0	0	4	0	0	0	0
113	END(38)	0	0	0	0	0	0	115	0	0	0	0	4	0	11	13	0	0	0	0	6	0	0	0	0
114	KP (39)	0	0	0	0	0	0	368	0	0	0	0	0	11	0	34	0	0	0	0	24	0	0	0	0
115	UP (41)	806	38	0	45	20	0	216	0	7	0	36	0	0	31	0	216	459	214	80	80	0	35	0	0
116	PRE(42)	0	0	0	0	0	0	15	0	0	0	0	0	0	0	218	0	0	0	0	0	0	0	0	0
117	MD (43)	47	16	0	17	15	0	64	0	0	0	0	0	0	0	485	0	0	19	0	16	0	34	0	0
118	PAL(45)	40	0	0	0	0	0	61	0	0	0	0	0	0	0	174	0	19	0	0	9	0	24	0	0
119	KDI(40)	97	0	0	0	0	0	42	0	0	0	0	0	0	0	52	0	0	0	0	6	0	11	0	0
120	BJM(51)	860	25	0	32	27	0	251	0	0	0	21	0	0	0	77	0	0	0	0	0	151	476	0	337
121	SPT(53)	29	0	0	0	0	0	18	0	0	0	0	0	0	0	11	0	0	0	0	118	0	0	0	0
122	SMR(54)	44	27	0	26	22	0	71	0	0	0	0	0	0	0	50	0	34	24	11	531	0	0	0	0
123	TAR(55)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	PTK(56)	62	0	0	0	0	0	32	0	0	0	0	0	0	0	20	0	0	0	0	301	0	0	0	0
125	MDH(61)	1463	28	0	0	0	0	313	0	0	15	0	0	0	0	142	0	0	0	0	143	0	0	0	0
126	SBG(63)	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	LSM(64)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	BHA(65)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129	PG (71)	633	0	0	0	0	0	270	0	0	0	0	0	0	0	127	0	0	0	0	137	0	0	0	0
130	TJK(72)	502	0	0	0	0	0	42	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	LT (73)	216	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	JB (74)	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	PD (75)	345	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	PBR(76)	136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	SKH(77)	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	AB (91)	304	0	0	0	0	0	99	0	0	0	0	0	0	0	70	0	0	0	0	44	0	0	0	0
137	TT (92)	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0
138	SCN(95)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	JAP(96)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	NRK(97)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	TOTAL	13894	3750	387	1883	1605	879	7248	408	569	914	742	163	137	431	2657	239	726	314	200	2638	159	848	0	403
142	SAT	24	8	0	7	6	0	19	0	0	0	5	3	3	5	12	0	5	5	4	6	3	8	38	4
143	G.TOTAL	13918	3758	387	1890	1611	879	7267	408	569	914	747	166	140	436	2669	239	731	319	204	2644	162	856	38	407

Circuits Requirement in 2004 (2/2)

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
96																				FILE: CCT
97																				TITLE: CI
98																				
99																				
100	MDN(61)	SBG(63)	LSM(64)	BNA(65)	PG (71)	TJK(72)	LT (73)	JB (74)	PD (75)	PBR(76)	SKN(77)	AB (91)	TT (92)	SON(95)	JAP(96)	MRK(97)	TOTAL	SAT	G.TOTAL	
101	1463	38	0	30	633	502	217	114	345	136	104	304	27	0	0	0	13860	24	13884	JKT(21)
102	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3767	8	3775	BD (22)
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	384	3	387	CBN(23)
104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1875	8	1883	SM (24)
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1611	6	1617	YK (27)
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	878	0	878	PWT(28)
107	313	0	0	0	270	42	0	0	23	0	0	99	0	0	0	0	7227	19	7246	SB (31)
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	408	0	408	JR (33)
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	601	0	601	ML (34)
110	15	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	932	0	932	MN (35)
111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	770	5	775	DPR(36)
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	172	4	176	SBW(37)
113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149	4	153	END(38)
114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	437	5	442	KP (39)
115	142	0	0	0	127	0	0	0	0	0	0	70	0	0	0	0	2622	11	2633	UP (41)
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	233	0	233	PRE(42)
117	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	722	5	727	PO (43)
118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	327	5	332	PAL(45)
119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	208	4	212	KOI(40)
120	144	0	0	0	137	0	0	0	0	0	0	44	0	0	0	0	2582	5	2587	BJM(51)
121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	176	3	179	SPT(53)
122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	840	8	848	SMR(54)
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	38	TAR(55)
124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	415	4	419	PTK(56)
125	0	88	351	193	143	18	0	0	103	51	35	47	0	0	0	0	3133	13	3146	MDN(61)
126	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	126	0	126	SBG(63)
127	351	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	367	0	367	LSM(64)
128	193	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	239	3	242	BNA(65)
129	143	0	0	0	0	123	120	95	126	93	79	42	0	0	0	0	1988	8	1996	PG (71)
130	18	0	0	0	123	0	0	0	0	0	0	0	0	0	0	0	698	4	702	TJK(72)
131	0	0	0	0	120	0	0	0	0	0	0	0	0	0	0	0	336	0	336	LT (73)
132	0	0	0	0	95	0	0	0	11	0	0	0	0	0	0	0	220	3	223	JB (74)
133	104	0	0	0	126	0	0	11	0	22	11	0	0	0	0	0	642	4	646	PD (75)
134	51	0	0	0	93	0	0	0	22	0	8	0	0	0	0	0	310	3	313	PBR(76)
135	35	0	0	0	79	0	0	0	11	8	0	0	0	0	0	0	237	4	241	SKN(77)
136	48	0	0	0	42	0	0	0	0	0	0	0	0	94	238	35	974	5	979	AB (91)
137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	33	69	TT (92)
138	0	0	0	0	0	0	0	0	0	0	0	94	0	0	0	0	94	4	98	SON(95)
139	0	0	0	0	0	0	0	0	0	0	0	238	0	0	0	5	243	4	247	JAP(96)
140	0	0	0	0	0	0	0	0	0	0	0	35	0	0	5	0	40	2	42	MRK(97)
141	3136	126	367	239	1988	698	337	220	641	310	237	973	36	94	243	40	50879	259	51138	TOTAL
142	13	0	0	4	8	4	0	4	4	4	3	5	33	4	4	3	258			SAT
143	3149	126	367	243	1996	702	337	224	645	314	240	978	69	98	247	43	51137			G.TOTAL

Circuits Requirement in 2009 (1/3)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
96	FILE: CCTMTX															
97	TITLE: CIRCUIT MATRIX															
98																
99																
100		JKT(21)	BD (22)	CBN(23)	SM (24)	YK (27)	PWT(28)	SB (31)	JR (33)	ML (34)	MN (35)	DPR(36)	SBW(37)	END(38)	KP (39)	UP (41)
101	JKT(21)	0	3737	336	1275	1088	695	3076	0	0	441	0	0	0	0	1054
102	BD (22)	3667	0	67	184	157	115	414	0	0	62	60	0	0	0	78
103	CBN(23)	325	67	0	30	0	22	62	0	0	0	0	0	0	0	0
104	SM (24)	1253	184	30	0	210	86	427	0	0	97	0	0	0	0	79
105	YK (27)	1069	157	0	210	0	78	335	0	0	90	44	0	0	0	50
106	PWT(28)	671	115	22	86	78	0	164	0	0	25	0	0	0	0	0
107	SB (31)	3057	369	56	353	302	132	0	508	744	458	755	194	161	515	232
108	JR (33)	0	0	0	0	0	0	508	0	0	0	32	0	0	0	0
109	ML (34)	37	32	0	48	44	0	635	0	0	0	0	0	0	0	0
110	MN (35)	471	62	0	97	90	34	442	0	0	0	0	0	0	0	0
111	DPR(36)	29	60	0	49	44	0	689	32	0	0	0	16	0	0	62
112	SBW(37)	0	0	0	0	0	0	191	0	0	0	16	0	5	0	11
113	END(38)	0	0	0	0	0	0	152	0	0	0	0	5	0	15	17
114	KP (39)	0	0	0	0	0	0	487	0	0	0	0	0	15	0	45
115	UP (41)	1066	50	0	60	26	0	286	0	9	0	48	0	0	41	0
116	PRE(42)	0	0	0	0	0	0	20	0	0	0	0	0	0	0	288
117	MO (43)	62	21	0	22	20	0	85	0	0	0	0	0	0	0	642
118	PAL(45)	53	0	0	0	0	0	81	0	0	0	0	0	0	0	230
119	KD1(46)	128	0	0	0	0	0	56	0	0	0	0	0	0	0	69
120	BJM(51)	1138	33	0	42	36	0	332	0	0	0	28	0	0	0	102
121	SPT(53)	38	0	0	0	0	0	24	0	0	0	0	0	0	0	15
122	SMR(54)	58	36	0	34	29	0	94	0	0	0	0	0	0	0	66
123	TAR(55)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	PTK(56)	82	0	0	0	0	0	42	0	0	0	0	0	0	0	26
125	MDN(61)	1936	37	0	0	0	0	414	0	0	20	0	0	0	0	188
126	SBG(63)	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	LSM(64)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	BNA(65)	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129	PG (71)	837	0	0	0	0	0	357	0	0	0	0	0	0	0	168
130	TJK(72)	664	0	0	0	0	0	56	0	0	17	0	0	0	0	0
131	LT (73)	286	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	JB (74)	151	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	PD (75)	456	0	0	0	0	0	30	0	0	0	0	0	0	0	0
134	PBR(76)	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	SKN(77)	138	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	AB (91)	402	0	0	0	0	0	131	0	0	0	0	0	0	0	93
137	TT (92)	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	SON(95)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	JAP(96)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	MRK(97)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	TOTAL	18382	4961	512	2491	2123	1163	9589	540	753	1209	982	216	181	570	3515
142	SAT	32	11	0	9	8	0	25	0	0	0	7	4	4	7	16
143	G.TOTAL	18414	4972	512	2500	2131	1163	9614	540	753	1209	988	220	185	577	3531

Circuits Requirement in 2009 (2/3)

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
96																
97																
98																
99																
100	PRE(42)	MO (43)	PAL(45)	KDI(40)	BJM(51)	SPT(53)	SMR(54)	TAR(55)	PTK(56)	MDN(61)	SBG(63)	LSH(64)	BNA(65)	PG (71)	TJK(72)	LT (73)
101	21	62	13	103	1138	11	58	0	52	1936	50	0	40	837	664	287
102	0	21	0	0	85	0	36	0	0	37	0	0	0	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	0	22	0	0	57	0	34	0	0	0	0	0	0	0	0	0
105	0	20	0	0	49	0	29	0	0	0	0	0	0	0	0	0
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	9	146	62	41	246	0	197	0	36	414	0	0	0	357	56	0
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	20	0	0	0	0	17	0
111	0	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0
112	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
113	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0
114	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0
115	286	607	283	106	106	0	46	0	0	188	0	0	0	168	0	0
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117	0	0	25	0	21	0	45	0	0	0	0	0	0	0	0	0
118	0	25	0	0	12	0	32	0	0	0	0	0	0	0	0	0
119	0	0	0	0	8	0	15	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	200	630	0	446	191	0	0	0	181	0	0
121	0	0	0	0	156	0	0	0	0	0	0	0	0	0	0	0
122	0	45	32	15	703	0	0	0	0	0	0	0	0	0	0	0
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	0	0	0	0	398	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	189	0	0	0	0	0	116	464	255	189	24	0
126	0	0	0	0	0	0	0	0	0	116	0	0	0	0	0	0
127	0	0	0	0	0	0	0	0	0	464	0	0	21	0	0	0
128	0	0	0	0	0	0	0	0	0	255	0	21	0	0	0	0
129	0	0	0	0	181	0	0	0	0	189	0	0	0	0	163	159
130	0	0	0	0	0	0	0	0	0	24	0	0	0	163	0	0
131	0	0	0	0	0	0	0	0	0	0	0	0	0	159	0	0
132	0	0	0	0	0	0	0	0	0	0	0	0	0	126	0	0
133	0	0	0	0	0	0	0	0	0	138	0	0	0	167	0	0
134	0	0	0	0	0	0	0	0	0	67	0	0	0	123	0	0
135	0	0	0	0	0	0	0	0	0	46	0	0	0	105	0	0
136	0	0	0	0	58	0	0	0	0	64	0	0	0	56	0	0
137	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	316	960	415	265	3490	210	1122	0	533	4149	167	486	316	2630	923	446
142	0	7	7	5	8	4	11	50	5	17	0	0	5	11	5	0
143	316	967	422	270	3498	214	1132	50	538	4166	167	486	321	2641	928	446

Circuits Requirement in 2009 (3/3)

	33	34	35	36	37	38	39	40	41	42	43	44	45
96													FILE: CCT
97													TITLE: CI
98													
99													
100	JB (74)	PD (75)	PBR(76)	SKN(77)	AB (91)	TT (92)	SON(95)	JAP(96)	MRK(97)	TOTAL	SAT	G.TOTAL	
101	151	456	180	138	402	36	0	61	0	18337	32	18369	JKT(21)
102	0	0	0	0	0	0	0	0	0	4984	11	4994	BD (22)
103	0	0	0	0	0	0	0	0	0	508	4	512	CBN(23)
104	0	0	0	0	0	0	0	0	0	2481	11	2491	SM (24)
105	0	0	0	0	0	0	0	0	0	2131	8	2139	YK (27)
106	0	0	0	0	0	0	0	0	0	1162	0	1162	PWT(28)
107	0	30	0	0	131	0	0	0	0	9561	25	9586	SB (31)
108	0	0	0	0	0	0	0	0	0	540	0	540	JR (33)
109	0	0	0	0	0	0	0	0	0	795	0	795	ML (34)
110	0	0	0	0	0	0	0	0	0	1233	0	1233	MN (35)
111	0	0	0	0	0	0	0	0	0	1019	7	1025	DPR(36)
112	0	0	0	0	0	0	0	0	0	228	5	233	SBW(37)
113	0	0	0	0	0	0	0	0	0	197	5	202	END(38)
114	0	0	0	0	0	0	0	0	0	578	7	585	KP (39)
115	0	0	0	0	93	0	0	0	0	3469	15	3483	UP (41)
116	0	0	0	0	0	0	0	0	0	308	0	308	PRE(42)
117	0	0	0	0	0	12	0	0	0	955	7	962	MO (43)
118	0	0	0	0	0	0	0	0	0	433	7	439	PAL(45)
119	0	0	0	0	0	0	0	0	0	275	5	280	KDI(40)
120	0	0	0	0	58	0	0	0	0	3416	7	3423	BJM(51)
121	0	0	0	0	0	0	0	0	0	233	4	237	SPT(53)
122	0	0	0	0	0	0	0	0	0	1111	11	1122	SMR(54)
123	0	0	0	0	0	0	0	0	0	0	50	50	TAR(55)
124	0	0	0	0	0	0	0	0	0	549	5	554	PTK(56)
125	0	136	67	46	62	0	0	0	0	4145	17	4162	MDN(61)
126	0	0	0	0	0	0	0	0	0	167	0	167	SBG(63)
127	0	0	0	0	0	0	0	0	0	486	0	486	LSM(64)
128	0	0	0	0	0	0	0	0	0	316	4	320	BNA(65)
129	126	167	123	105	56	0	0	0	0	2630	11	2641	PG (71)
130	0	0	0	0	0	0	0	0	0	923	5	929	TJK(72)
131	0	0	0	0	0	0	0	0	0	445	0	445	LT (73)
132	0	15	0	0	0	0	0	0	0	291	4	295	JB (74)
133	15	0	29	15	0	0	0	0	0	849	5	855	PD (75)
134	0	29	0	11	0	0	0	0	0	410	4	414	PBR(76)
135	0	15	11	0	0	0	0	0	0	314	5	319	SKN(77)
136	0	0	0	0	0	0	124	315	46	1289	7	1295	AB (91)
137	0	0	0	0	0	0	0	0	0	48	44	91	TT (92)
138	0	0	0	0	124	0	0	0	0	124	5	130	SON(95)
139	0	0	0	0	315	0	0	0	7	321	5	327	JAP(96)
140	0	0	0	0	46	0	0	7	0	53	3	56	MRK(97)
141	291	848	410	314	1287	48	124	321	53	67313	343	67656	TOTAL
142	5	5	5	4	7	44	5	5	4	341			SAT
143	296	853	415	318	1294	91	130	327	57	67654			G.TOTAL

Circuits Requirement in 2014 (1/3)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
96	FILE: CCTMTX														
97	TITLE: CIRCUIT MATRIX														
98															
99															
100		JKT(21)	BD (22)	CBN(23)	SM (24)	YK (27)	PWT(28)	SB (31)	JR (33)	ML (34)	MN (35)	DPR(36)	SBW(37)	END(38)	KP (39)
101	JKT(21)	0	4718	424	1610	1373	877	3883	0	0	556	0	0	0	0
102	BD (22)	4629	0	85	232	199	145	523	0	0	78	75	0	0	0
103	CBN(23)	411	85	0	38	0	28	78	0	0	0	0	0	0	0
104	SM (24)	1581	232	38	0	266	109	539	0	0	122	0	0	0	0
105	YK (27)	1349	199	0	266	0	99	423	0	0	114	55	0	0	0
106	PWT(28)	847	145	28	109	99	0	207	0	0	32	0	0	0	0
107	SB (31)	3859	466	70	446	381	167	0	641	939	578	954	245	204	650
108	JR (33)	0	0	0	0	0	0	641	0	0	0	40	0	0	0
109	ML (34)	47	40	0	60	55	0	802	0	0	0	0	0	0	0
110	MN (35)	595	78	0	122	114	43	558	0	0	0	0	0	0	0
111	DPR(36)	37	75	0	62	55	0	870	40	0	0	0	20	0	0
112	SBW(37)	0	0	0	0	0	0	240	0	0	0	20	0	7	0
113	END(38)	0	0	0	0	0	0	192	0	0	0	0	7	0	18
114	KP (39)	0	0	0	0	0	0	615	0	0	0	0	0	18	0
115	UP (41)	1346	63	0	75	33	0	361	0	12	0	60	0	0	52
116	PRE(42)	0	0	0	0	0	0	25	0	0	0	0	0	0	0
117	MO (43)	78	27	0	28	25	0	107	0	0	0	0	0	0	0
118	PAL(45)	67	0	0	0	0	0	102	0	0	0	0	0	0	0
119	KDI(40)	162	0	0	0	0	0	70	0	0	0	0	0	0	0
120	BJM(51)	1436	42	0	53	45	0	419	0	0	0	35	0	0	0
121	SPT(53)	48	0	0	0	0	0	30	0	0	0	0	0	0	0
122	SMR(54)	73	45	0	43	37	0	119	0	0	0	0	0	0	0
123	TAR(55)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	PTK(56)	104	0	0	0	0	0	53	0	0	0	0	0	0	0
125	MDN(61)	2443	47	0	0	0	0	523	0	0	25	0	0	0	0
126	SBG(63)	63	0	0	0	0	0	0	0	0	0	0	0	0	0
127	LSM(64)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	BNA(65)	50	0	0	0	0	0	0	0	0	0	0	0	0	0
129	PG (71)	1057	0	0	0	0	0	451	0	0	0	0	0	0	0
130	TJK(72)	838	0	0	0	0	0	70	0	0	22	0	0	0	0
131	LT (73)	361	0	0	0	0	0	0	0	0	0	0	0	0	0
132	JB (74)	190	0	0	0	0	0	0	0	0	0	0	0	0	0
133	PD (75)	576	0	0	0	0	0	38	0	0	0	0	0	0	0
134	PBR(76)	227	0	0	0	0	0	0	0	0	0	0	0	0	0
135	SKN(77)	174	0	0	0	0	0	0	0	0	0	0	0	0	0
136	AB (91)	508	0	0	0	0	0	165	0	0	0	0	0	0	0
137	TT (92)	45	0	0	0	0	0	0	0	0	0	0	0	0	0
138	SON(95)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	JAP(96)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	MRK(97)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	TOTAL	23203	6263	646	3145	2680	1408	12104	681	950	1526	1239	272	229	720
142	SAT	40	13	0	12	10	0	32	0	0	0	8	5	5	8
143	G.TOTAL	23243	6276	646	3156	2690	1408	12136	681	950	1526	1247	277	234	728

Circuits Requirement in 2014 (2/3)

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
96															
97															
98															
99															
100	UP (41)	PRE(42)	MO (43)	PAL(45)	KDI(40)	BJM(51)	SPT(53)	SMR(54)	TAR(55)	PTK(56)	MDN(61)	SBG(63)	LSM(64)	BNA(65)	PG (71)
101	1331	27	78	17	130	1436	13	73	0	65	2443	63	0	50	1057
102	99	0	27	0	0	107	0	45	0	0	47	0	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	100	0	28	0	0	72	0	43	0	0	0	0	0	0	0
105	63	0	25	0	0	62	0	37	0	0	0	0	0	0	0
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	292	12	184	78	52	311	0	249	0	45	523	0	0	0	451
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
111	78	0	0	0	0	48	0	0	0	0	0	0	0	0	0
112	13	0	0	0	0	7	0	0	0	0	0	0	0	0	0
113	22	0	0	0	0	10	0	0	0	0	0	0	0	0	0
114	57	0	0	0	0	40	0	0	0	0	0	0	0	0	0
115	0	361	767	357	134	134	0	58	0	0	237	0	0	0	212
116	364	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117	810	0	0	32	0	27	0	57	0	0	0	0	0	0	0
118	291	0	32	0	0	15	0	40	0	0	0	0	0	0	0
119	87	0	0	0	0	10	0	18	0	0	0	0	0	0	0
120	129	0	0	0	0	0	252	795	0	563	240	0	0	0	229
121	18	0	0	0	0	197	0	0	0	0	0	0	0	0	0
122	84	0	57	40	18	887	0	0	0	0	0	0	0	0	0
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	33	0	0	0	0	503	0	0	0	0	0	0	0	0	0
125	237	0	0	0	0	239	0	0	0	0	0	147	586	322	230
126	0	0	0	0	0	0	0	0	0	0	147	0	0	0	0
127	0	0	0	0	0	0	0	0	0	0	586	0	0	27	0
128	0	0	0	0	0	0	0	0	0	0	322	0	27	0	0
129	212	0	0	0	0	229	0	0	0	0	239	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	30	0	0	0	205
131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200
132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	159
133	0	0	0	0	0	0	0	0	0	0	174	0	0	0	210
134	0	0	0	0	0	0	0	0	0	0	85	0	0	0	155
135	0	0	0	0	0	0	0	0	0	0	58	0	0	0	132
136	117	0	0	0	0	73	0	0	0	0	80	0	0	0	70
137	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	4437	399	1212	524	334	4405	266	1416	0	673	5237	210	613	399	3320
142	20	0	8	8	7	10	5	13	63	7	22	0	0	7	13
143	457	399	1221	533	341	4415	271	1430	63	680	5259	210	613	406	3333

Circuits Requirement in 2014 (3/3)

FILE: CCT
TITLE: C1

	31	32	33	34	35	36	37	38	39	40	41	42	43	44	
96															
97															
98															
99															
100	TJK(72)	LT (73)	JB (74)	PD (75)	PBR(76)	SKN(77)	AB (91)	TT (92)	SON(95)	JAP(96)	MRK(97)	TOTAL	SAT	G.TOTAL	
101	338	362	190	570	227	174	508	45	0	0	0	23146	40	23186	JKT(21)
102	0	0	0	0	0	0	0	0	0	0	0	6291	13	6304	BD (22)
103	0	0	0	0	0	0	0	0	0	0	0	641	5	646	CBN(23)
104	0	0	0	0	0	0	0	0	0	0	0	3131	13	3145	SM (24)
105	0	0	0	0	0	0	0	0	0	0	0	2690	10	2700	YK (27)
106	0	0	0	0	0	0	0	0	0	0	0	1466	0	1466	PWT(28)
107	70	0	0	38	0	0	165	0	0	0	0	12069	32	12101	SB (31)
108	0	0	0	0	0	0	0	0	0	0	0	681	0	681	JR (33)
109	0	0	0	0	0	0	0	0	0	0	0	1004	0	1004	ML (34)
110	22	0	0	0	0	0	0	0	0	0	0	1556	0	1556	MN (35)
111	0	0	0	0	0	0	0	0	0	0	0	1286	8	1294	DPR(36)
112	0	0	0	0	0	0	0	0	0	0	0	287	7	294	SDV(37)
113	0	0	0	0	0	0	0	0	0	0	0	249	7	256	END(38)
114	0	0	0	0	0	0	0	0	0	0	0	730	8	738	KP (39)
115	0	0	0	0	0	0	117	0	0	0	0	4379	18	4397	UP (41)
116	0	0	0	0	0	0	0	0	0	0	0	389	0	389	PRE(42)
117	0	0	0	0	0	0	0	15	0	0	0	1206	8	1214	MO (43)
118	0	0	0	0	0	0	0	0	0	0	0	546	8	554	PAL(45)
119	0	0	0	0	0	0	0	0	0	0	0	347	7	354	KDI(40)
120	0	0	0	0	0	0	73	0	0	0	0	4312	8	4320	BJM(51)
121	0	0	0	0	0	0	0	0	0	0	0	294	5	299	SPT(53)
122	0	0	0	0	0	0	0	0	0	0	0	1403	13	1416	SMR(54)
123	0	0	0	0	0	0	0	0	0	0	0	0	63	63	TAR(55)
124	0	0	0	0	0	0	0	0	0	0	0	693	7	700	PTK(56)
125	30	0	0	172	85	58	78	0	0	0	0	5232	22	5254	MDN(G1)
126	0	0	0	0	0	0	0	0	0	0	0	210	0	210	SBG(63)
127	0	0	0	0	0	0	0	0	0	0	0	613	0	613	LSM(64)
128	0	0	0	0	0	0	0	0	0	0	0	399	5	404	BNA(65)
129	205	200	159	210	155	132	70	0	0	0	0	3320	13	3333	PG (71)
130	0	0	0	0	0	0	0	0	0	0	0	1166	7	1172	TJK(72)
131	0	0	0	0	0	0	0	0	0	0	0	561	0	561	LT (73)
132	0	0	0	18	0	0	0	0	0	0	0	367	5	372	JB (74)
133	0	0	18	0	37	18	0	0	0	0	0	1072	7	1079	PD (75)
134	0	0	0	37	0	13	0	0	0	0	0	518	5	523	PBR(76)
135	0	0	0	18	13	0	0	0	0	0	0	396	7	402	SKN(77)
136	0	0	0	0	0	0	0	0	157	397	58	1627	8	1635	AB (91)
137	0	0	0	0	0	0	0	0	0	0	0	60	55	115	TT (92)
138	0	0	0	0	0	0	157	0	0	0	0	157	7	164	SON(95)
139	0	0	0	0	0	0	397	0	0	0	8	406	7	412	JAP(96)
140	0	0	0	0	0	0	58	0	0	8	0	67	3	70	MRK(97)
141	1166	563	367	1070	518	396	1625	60	157	406	67	84968	433	85400	TOTAL
142	7	0	7	7	7	5	8	55	7	7	5	431			SAT
143	72	563	374	1077	524	401	1633	115	164	412	72	85399			G.TOTAL

Circuits Requirement in 2019 (1/3)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
96	FILE: CCTNTX														
97	TITLE: CIRCUIT MATRIX														
98															
99															
100		JKT(21)	BD (22)	CBN(23)	SM (24)	YK (27)	PWT(28)	SB (31)	JR (33)	ML (34)	MN (35)	DPR(36)	SBW(37)	END(38)	KP (39)
101	JKT(21)	0	5786	520	1974	1683	1075	4762	0	0	682	0	0	0	0
102	BD (22)	5677	0	104	285	244	178	641	0	0	96	92	0	0	0
103	CBN(23)	504	104	0	47	0	35	96	0	0	0	0	0	0	0
104	SM (24)	1939	285	47	0	326	133	662	0	0	150	0	0	0	0
105	YK (27)	1655	244	0	326	0	121	518	0	0	139	68	0	0	0
106	PWT(28)	1038	178	35	133	121	0	254	0	0	39	0	0	0	0
107	SB (31)	4733	571	86	547	467	205	0	786	1151	709	1169	301	250	797
108	JR (33)	0	0	0	0	0	0	786	0	0	0	49	0	0	0
109	ML (34)	57	49	0	74	68	0	983	0	0	0	0	0	0	0
110	MN (35)	729	96	0	150	139	53	684	0	0	0	0	0	0	0
111	DPR(36)	45	92	0	76	68	0	1067	49	0	0	0	25	0	0
112	SBW(37)	0	0	0	0	0	0	295	0	0	0	25	0	8	0
113	END(38)	0	0	0	0	0	0	236	0	0	0	0	8	0	23
114	KP (39)	0	0	0	0	0	0	754	0	0	0	0	0	23	0
115	UP (41)	1651	78	0	92	41	0	442	0	14	0	74	0	0	63
116	PRE(42)	0	0	0	0	0	0	31	0	0	0	0	0	0	0
117	MO (43)	96	33	0	35	31	0	131	0	0	0	0	0	0	0
118	PAL(45)	82	0	0	0	0	0	125	0	0	0	0	0	0	0
119	KDI(40)	199	0	0	0	0	0	86	0	0	0	0	0	0	0
120	BJM(51)	1761	51	0	66	55	0	514	0	0	0	43	0	0	0
121	SPT(53)	59	0	0	0	0	0	37	0	0	0	0	0	0	0
122	SMR(54)	90	55	0	53	45	0	145	0	0	0	0	0	0	0
123	TAR(55)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	PTK(56)	127	0	0	0	0	0	66	0	0	0	0	0	0	0
125	MDN(61)	2996	57	0	0	0	0	641	0	0	31	0	0	0	0
126	SBG(63)	78	0	0	0	0	0	0	0	0	0	0	0	0	0
127	LSH(64)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	BNA(65)	61	0	0	0	0	0	0	0	0	0	0	0	0	0
129	PG (71)	1296	0	0	0	0	0	553	0	0	0	0	0	0	0
130	TJK(72)	1028	0	0	0	0	0	86	0	0	27	0	0	0	0
131	LT (73)	442	0	0	0	0	0	0	0	0	0	0	0	0	0
132	JB (74)	233	0	0	0	0	0	0	0	0	0	0	0	0	0
133	PD (75)	707	0	0	0	0	0	47	0	0	0	0	0	0	0
134	PBR(76)	279	0	0	0	0	0	0	0	0	0	0	0	0	0
135	SKN(77)	213	0	0	0	0	0	0	0	0	0	0	0	0	0
136	AB (91)	623	0	0	0	0	0	203	0	0	0	0	0	0	0
137	TT (92)	55	0	0	0	0	0	0	0	0	0	0	0	0	0
138	SON(95)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	JAP(96)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	MRK(97)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	TOTAL	28455	7680	793	3856	3287	1800	14844	836	1165	1872	1520	334	281	883
142	SAT	49	16	0	14	12	0	39	0	0	0	10	6	6	10
143	G.TOTAL	28504	7696	793	3871	3299	1800	14883	836	1165	1872	1530	340	287	893

Circuits Requirement in 2019 (2/3)

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
96															
97															
98															
99															
100	UP (41)	PRE(42)	MO (43)	PAL(45)	KDI(40)	BJM(51)	SPT(53)	SMR(54)	TAR(55)	PTK(56)	MDN(61)	SBG(63)	LSM(64)	BNA(65)	PG (71)
101	1632	33	96	20	160	1761	16	90	0	80	2996	78	0	61	1296
102	121	0	33	0	0	131	0	55	0	0	57	0	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	123	0	35	0	0	88	0	53	0	0	0	0	0	0	0
105	78	0	31	0	0	76	0	45	0	0	0	0	0	0	0
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	358	14	225	96	63	381	0	305	0	55	641	0	0	0	553
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0
111	96	0	0	0	0	59	0	0	0	0	0	0	0	0	0
112	16	0	0	0	0	8	0	0	0	0	0	0	0	0	0
113	27	0	0	0	0	12	0	0	0	0	0	0	0	0	0
114	70	0	0	0	0	49	0	0	0	0	0	0	0	0	0
115	0	442	940	438	164	164	0	72	0	0	291	0	0	0	260
116	446	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117	993	0	0	39	0	33	0	70	0	0	0	0	0	0	0
118	356	0	39	0	0	18	0	49	0	0	0	0	0	0	0
119	106	0	0	0	0	12	0	23	0	0	0	0	0	0	0
120	158	0	0	0	0	0	309	975	0	690	295	0	0	0	281
121	23	0	0	0	0	242	0	0	0	0	0	0	0	0	0
122	102	0	70	49	23	1087	0	0	0	0	0	0	0	0	0
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	41	0	0	0	0	616	0	0	0	0	0	0	0	0	0
125	291	0	0	0	0	293	0	0	0	0	0	180	719	395	293
126	0	0	0	0	0	0	0	0	0	0	180	0	0	0	0
127	0	0	0	0	0	0	0	0	0	0	719	0	0	33	0
128	0	0	0	0	0	0	0	0	0	0	395	0	33	0	0
129	260	0	0	0	0	281	0	0	0	0	293	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	37	0	0	0	252
131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	246
132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	195
133	0	0	0	0	0	0	0	0	0	0	213	0	0	0	258
134	0	0	0	0	0	0	0	0	0	0	104	0	0	0	190
135	0	0	0	0	0	0	0	0	0	0	72	0	0	0	162
136	143	0	0	0	0	90	0	0	0	0	98	0	0	0	86
137	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	5442	489	1487	643	410	5403	326	1737	0	825	6423	258	752	480	4071
142	25	0	10	10	8	12	6	16	78	8	27	0	0	8	16
143	5466	489	1497	653	418	5415	332	1753	78	834	6449	258	752	488	4088

Circuits Requirement in 2019 (3/3)

	31	32	33	34	35	36	37	38	39	40	41	42	43	44	FILE: CCT TITLE: CI
96															
97															
98															
99															
100	TJK(72)	LT (73)	JB (74)	PD (75)	PBR(76)	SKN(77)	AB (91)	TT (92)	SON(95)	JAP(96)	MRK(97)	TOTAL	SAT	G.TOTAL	
101	1028	444	233	707	279	213	623	55	0	0	0	28385	49	28434	JKT(21)
102	0	0	0	0	0	0	0	0	0	0	0	7715	16	7731	BD (22)
103	0	0	0	0	0	0	0	0	0	0	0	786	6	793	CBN(23)
104	0	0	0	0	0	0	0	0	0	0	0	3840	16	3856	SN (24)
105	0	0	0	0	0	0	0	0	0	0	0	3299	12	3312	YK (27)
106	0	0	0	0	0	0	0	0	0	0	0	1798	0	1798	PWT(28)
107	86	0	0	47	0	0	203	0	0	0	0	14801	39	14840	SB (31)
108	0	0	0	0	0	0	0	0	0	0	0	836	0	836	JR (33)
109	0	0	0	0	0	0	0	0	0	0	0	1231	0	1231	ML (34)
110	27	0	0	0	0	0	0	0	0	0	0	1909	0	1909	MN (35)
111	0	0	0	0	0	0	0	0	0	0	0	1577	10	1587	DPR(36)
112	0	0	0	0	0	0	0	0	0	0	0	352	8	360	SBW(37)
113	0	0	0	0	0	0	0	0	0	0	0	305	8	313	END(38)
114	0	0	0	0	0	0	0	0	0	0	0	895	10	905	KP (39)
115	0	0	0	0	0	0	143	0	0	0	0	5370	23	5392	UP (41)
116	0	0	0	0	0	0	0	0	0	0	0	477	0	477	PRE(42)
117	0	0	0	0	0	0	0	18	0	0	0	1479	10	1489	MO (43)
118	0	0	0	0	0	0	0	0	0	0	0	670	10	680	PAL(45)
119	0	0	0	0	0	0	0	0	0	0	0	426	8	434	KDI(40)
120	0	0	0	0	0	0	90	0	0	0	0	5288	10	5298	BJM(51)
121	0	0	0	0	0	0	0	0	0	0	0	360	6	367	SPT(53)
122	0	0	0	0	0	0	0	0	0	0	0	1720	16	1737	SMR(54)
123	0	0	0	0	0	0	0	0	0	0	0	0	78	78	TAR(55)
124	0	0	0	0	0	0	0	0	0	0	0	850	8	858	PTK(56)
125	37	0	0	211	104	72	96	0	0	0	0	6416	27	6443	MDN(61)
126	0	0	0	0	0	0	0	0	0	0	0	258	0	258	SBG(63)
127	0	0	0	0	0	0	0	0	0	0	0	752	0	752	LSM(64)
128	0	0	0	0	0	0	0	0	0	0	0	480	6	486	BNA(65)
129	252	246	195	258	190	162	86	0	0	0	0	4071	16	4088	PG (71)
130	0	0	0	0	0	0	0	0	0	0	0	1430	8	1438	TJK(72)
131	0	0	0	0	0	0	0	0	0	0	0	688	0	688	LT (73)
132	0	0	0	23	0	0	0	0	0	0	0	451	6	457	JB (74)
133	0	0	23	0	45	23	0	0	0	0	0	1315	8	1323	PD (75)
134	0	0	0	45	0	16	0	0	0	0	0	635	6	641	PBR(76)
135	0	0	0	23	16	0	0	0	0	0	0	485	8	494	SKN(77)
136	0	0	0	0	0	0	0	0	193	487	72	1995	10	2005	AB (91)
137	0	0	0	0	0	0	0	0	0	0	0	74	68	141	TT (92)
138	0	0	0	0	0	0	193	0	0	0	0	193	8	201	SON(95)
139	0	0	0	0	0	0	487	0	0	0	10	498	8	506	JAP(96)
140	0	0	0	0	0	0	72	0	0	10	0	82	4	86	MRK(97)
141	1430	690	451	1313	635	485	1993	74	193	498	82	104200	530	104731	TOTAL
142	8	0	8	8	8	6	10	68	8	8	6	528			SAT
143	1438	690	459	1321	643	492	2003	141	201	506	88	104729			G.TOTAL

ANNEX IV
CONDITIONS OF SEA AND CABLE ROUTE

1. Data on Earthquake

1-1 Indonesia Earthquake Map
1-2 Earthquake Map, Makassar Strait
1-3 Sea Bottom Condition at Makassar Strait
1-4 Indonesia Chronological Record of Earthquake

2. Data on Submarine Oil Field

2-1 Oil Development Area around Balikpapan

3. Data on Mine

3-1 Unswept Area of Mine
3-2 Mine Danger Area

4. Data on Meteorology

4-1 Banjarmasin, Balikpapan, Ujung Pandang
4-2 Average Location of Wind Distribution and Tropical Wave

5. Cross Section of Sea Bottom

5-1 Cross Section (Plan-1A)
5-2 Cross Section (Plan-1B)
5-3 Cross Section (Plan-1C)
5-4 Cross Section (Plan-2)

6. Location of Planned Cable Route

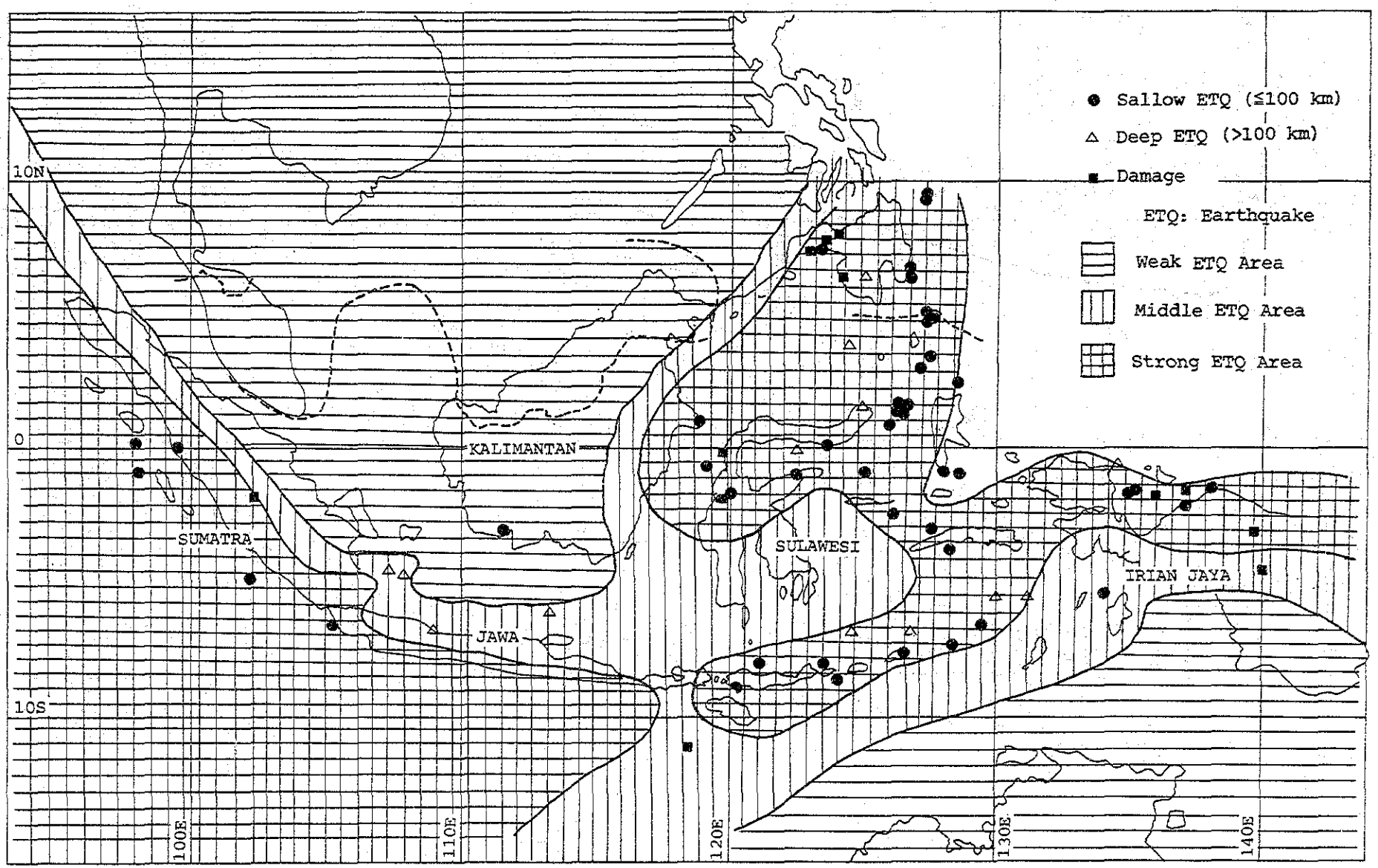
6-1 Location of Plan-1A
6-2 Location of Plan-1B
6-3 Location of Plan-1C
6-4 Location of Plan-2

7. Submarine Cable Landing Point

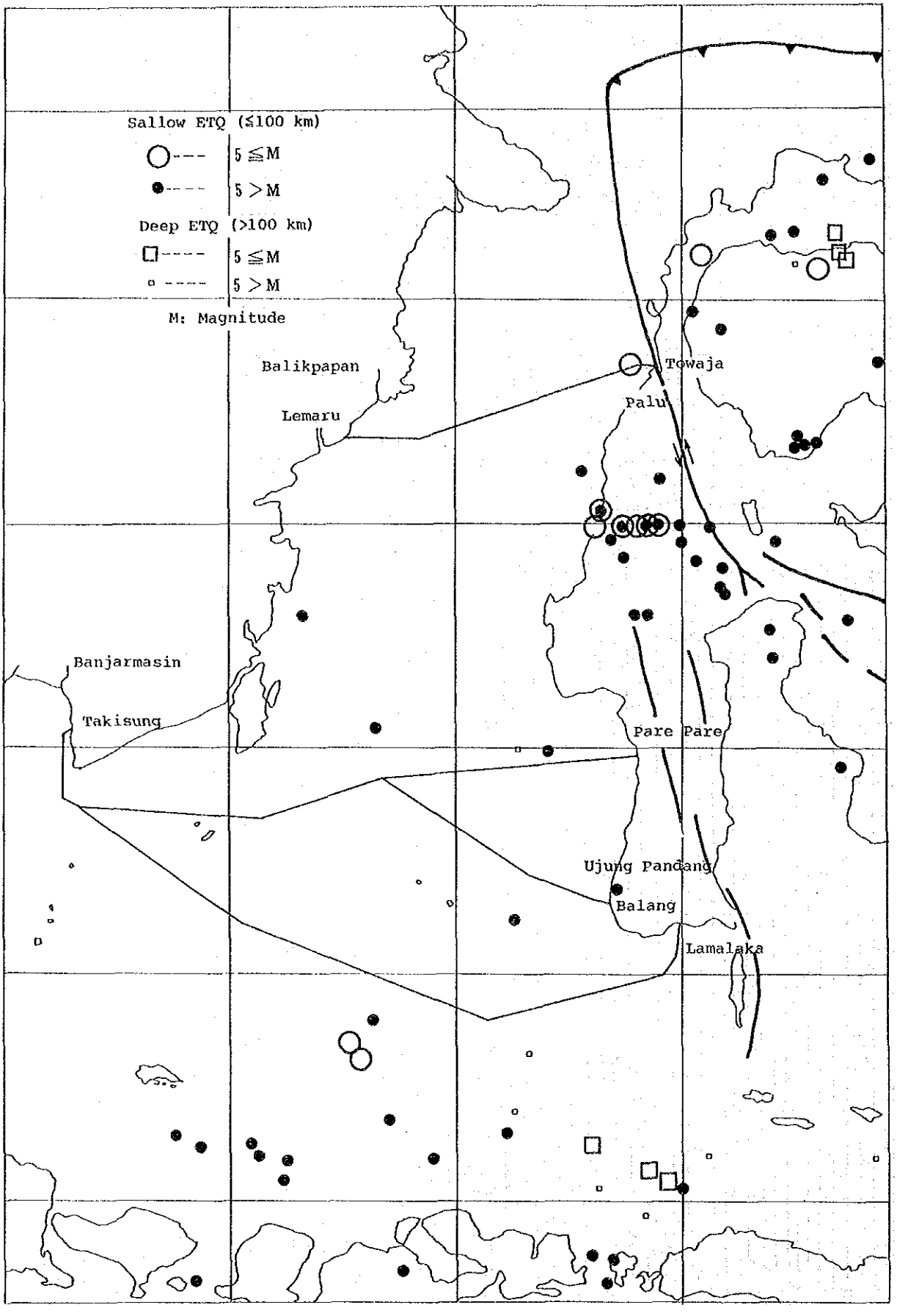
7-1 Takisung Cable Landing Point
7-2 Lamalaka Cable Landing Point
7-3 Balang Cable Landing Point
7-4 Bojo Cable Landing Point
7-5 Lemaru Cable Landing Point
7-6 Towaja Cable Landing Point

1. Data on Earthquake

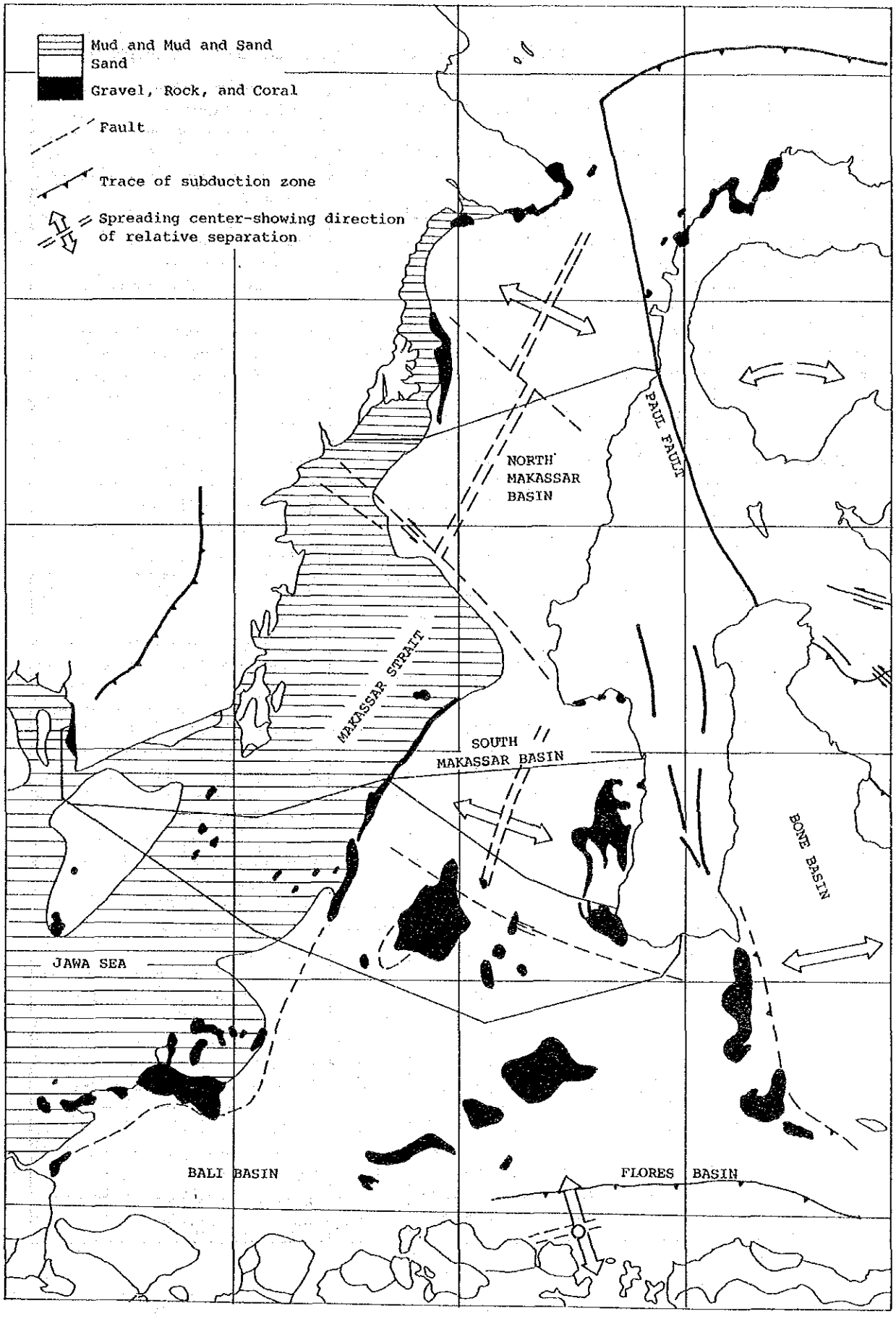
1-1 Indonesia Earthquake Map (M≧6.5) 1945-1985 (Chrono Scientific Tables)



1-2 Earthquake Map, Makassar Strait
(1985, 1986 BALAY WILAYAH IV)



1-3 Sea Bottom Condition at Makassar Strait
(K.O. Emery et al., rev. 1972)



1-4 (1/4) Indonesia Chronological Record of Earthquake

Year	Date	M	Latitude	Longitude	Depth	Area/Damage
1945	5 9	7.0	S 8	E 123 1/2	-	
	10 16	7.1	S 3/4	E 125	50	Banda Sea
1946	5 8	7.1	0	E 99 1/2	S	Southern Sumatra
	5 16	7.0	S 1	E 98		Southwest of Sumatra
1947	4 2	7.4	S 1 1/2	E 138	S	West New Guinea region
	5 27	7 1/2	S 1 1/2	E 135 1/4	S	West New Guinea region
	6 12	7.2	N 1 1/2	E 126 1/2	40	Molucca Passage
1948	1 28	7.2	N 1 1/2	E 126 1/2	80	Molucca Passage
	2 9	7.2	0	E 122 1/2	160	Northern Sulawesi
	3 1	7.9	S 3	E 127 1/2	60	Ceram Sea
	3 13	7.1	N 1 1/2	E 126 1/2	60	Molucca Passage
1949	1 23	7.1	S 9	E 94	100	South Indian Ocean
	3 27	7.0	N 3 1/2	E 127 1/2	S	Talaud Is.
	4 23	7.1	N 8	E 121	80	Florles Sea
	4 30	7.4	N 6 1/2	E 125	130	Mindanao, Philippines Is.
	9 14	7.2	N 3/4	E 126	50	Molucca Psssage
1950	8 31	7	N 5 1/2	E 126		Mindanao, Philippines Is.
	10 8	7.6	S 3 3/4	E 128 1/4	S	Ceram: Tidal Wave
	11 2	8.1	S 6 1/2	E 129 1/2	60	Banda Sea
1951	3 19	7.8	N 9 1/2	E 127 1/4		Philippines Is. region
1952	2 14	7 1/4	S 7 1/2	E 126 1/2	S	Banda Sea
	3 19	7 3/4	N 9 1/2	E 127 1/4	S	Philippines Is. region
1953	6 25	7.1	S 8.5	E 124	50	Timor
1954	2 20	7.0	S 6.8	E 124.5	580	Banda Sea
	7 3	7.0	S 6.5	E 105.3	80	Sunda Strait

1-4 (2/4) Indonesia Chronological Record of Earthquake

Year	Date	M	Latitude	Longitude	Depth	Area/Damage
1955	3 22	7.1	S 8.5	E 92	S	South Indian Ocean
	3 31	7.6	N 8	E 124	S	Mindanao, Philippines Is. Ilagan - Dead 432
	5 17	7.3	N 7	E 94	S	Nicobar Is. region
1956	7 18	7.5	S 5.5	E 130	190	Banda Sea
1957	3 23	7.3	S 5.5	E 131	150	Banda Sea
	4 16	7.3	S 4.5	E 107.5	600	Jawa Sea
	6 22	7.3	S 1.5	E 137	S	West New Guinea region Big damage at Geelvink
	8 9	7	S 2	E 137		West New Guinea region
1958	8 15	7.0	N 1.5	E 125	170	Molucca Passage
1959	3 1	7.0	S 0.5	E 134.5	100	West New Guinea region
1960	-	-	-	-	-	
1961	3 28	7	N 0.2	E 123.6	83	Northern Sulawesi
1962	5 15	7.2	S 7.3	E 128.3	34	Banda Sea
1963	4 16	7.0	S 0.8	E 128		Halmahera
	12 15	7.1	S 4.8	E 108	650	Jawa Sea
1964	1 4	6.7	S 1.9	E 102.3	33	Sumatra: Dead 110 Injury 479
	4 23	7.2	S 5.3	E 134	33	Aru Is. region
	7 8	6.5	S 5.5	E 129.8	165	Banda Sea
	11 16	6.7	N 1	E 118.8	33	Borneo
1965	1 17	6.5	S 6.8	E 109.1	113	Jawa
	1 24	6.6	S 2.4	E 126	6	Ceram Sea
1966	4 23	7	S 0.9	E 122.4	45	Northern Sulawesi
	9 8	7	N 2.4	E 128.4	96	Halmahera

1-4 (3/4) Indonesia Chronological Record of Earthquake

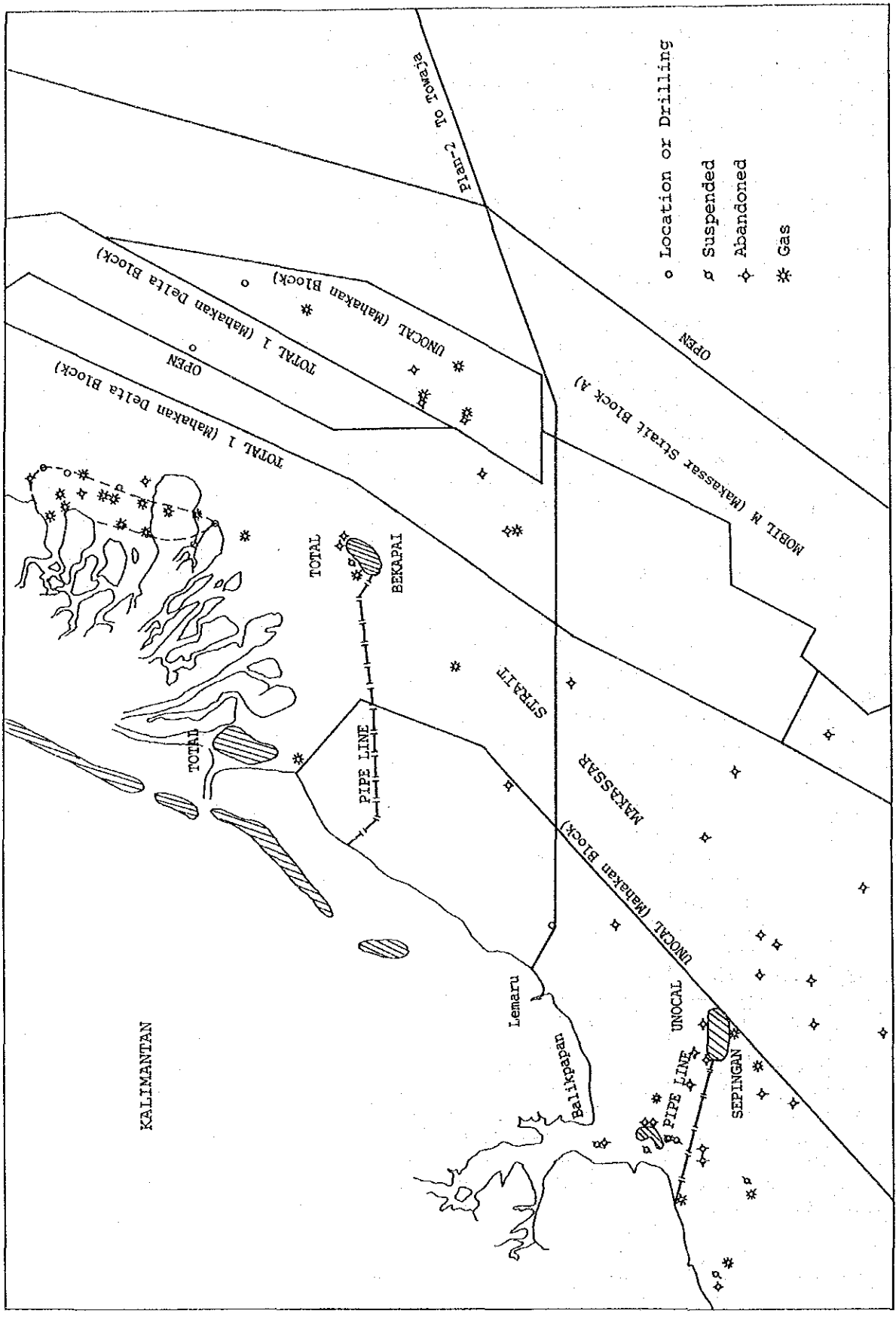
Year	Date	M	Latitude	Longitude	Depth	Area/Damage
1967	3 24	7.2	S 6	E 112.3	600	Jawa Sea
1968	1 26	7	S 8.8	E 120.4	29	Flores Is. region
	4 7	7.0	S 1.8	E 120.1	20	Sulawesi
	8 10	7 1/2	N 1.4	E 126.2	33	Molucca Passage
	8 14	7 3/4	N 0.2	E 119.8	23	Northern Sulawesi Tidal Wave: Dead 200
1969	1 30	7.2	N 4.8	E 127.4	70	Talaud Is.
	2 3	7	N 4.9	E 127.4	N	Talaud Is.
	2 11	7	S 6.7	E 126.8	450	Banda Sea
	3 27	7.0	N 4.8	E 127.5	32	Talaud Is.
	8 5	7.2	N 1.3	E 126.2	34	Molucca Passage
	8 11	7.0	N 1.7	E 126.5	34	Molucca Passage
	11 21	7.5	N 2.1	E 94.6	20	Off W.Coast of Northern Sumatra
1970	1 10	7.3	N 6.8	E 126.7	73	Mindanao, Philippines Is.
1971	1 10	8.1	S 3.1	E 139.7	N	West New Guinea Genjem drift round
1972	6 11	7.5	N 3.9	E 124.3	325	Sulawesi Sea
	7 2	7.3	N 6.5	E 126.6	N	Mindanao, Philippines Is. Tidal Wave: Yap 18 cm, Okinawa 50 cm
1973	-	-	-	-	-	
1974	-	-	-	-	-	
1975	7 10	7.0	N 6.5	E 126.6	86	Mindanao, Philippines Is.
	10 1	7.0	S 4.9	E 102.2	N	Southern Sumatra
1976	8 16	7.7	N 6.3	E 124.0	33	Mindanao, Philippines Is. Dead: 5000 to 8000 Tidal Wave Big damage at Moro

1-4 (4/4) Indonesia Chronological Record of Earthquake

Year	Date	M	Latitude	Longitude	Depth	Area/Damage
1976	8 17	7.1	N 7.2	E 122.9	22	Mindanao, Philippines Is. Damage
	10 29	7.2	S 4.5	E 139.9	33	West Irian: dead 133
1977	8 19	8.0	S 11.1	E 118.5	33	South of Sumbawa Is. Dead about 190 Unidentified 89 Tidal Wave at Sumbawa 10m Australia Northern Coast 6m
1978	7 12	7.1	N 7.3	E 123.4	33	Mindanao, Philippines Is.
1979	4 10	7.2	N 3.0	E 127.0	20	Molucca Passage
	9 12	7.7	S 1.7	E 135.9	33	West Irian: Dead 15, Yapan damage Biak & Yapan: Tidal Wave
1980	-	-	-	-	-	
1981	-	-	-	-	-	
1982	-	-	-	-	-	
1983	4 4	6.6	N 5.7	E 94.7	79	Northern Sumatra
	11 24	7.1	S 7.5	E 128.2	179	Banda Sea
1984	3 5	6.5	N 8.1	E 123.8	649	Mindanao, Philippines Is.
	6 17	7.4	N 0.2	E 98.0	33	Northern Sumatra
	11 17	7.1	S 1.6	E 134.9		West Irian region
1985	1 21	6.6	S 1.0	E 128.5	33	Halmahera
	3 2	6.7	S 2.0	E 119.7	44	Sulawesi
	3 18	6.5	N 7.8	E 123.5	33	Mindaiao, Philippines Is. Dead 2
	4 13	6.6	N 1.6	E 126.4	51	Molucca Passage
	11 17	6.9	S 1.6	E 134.9	10	West Irian region

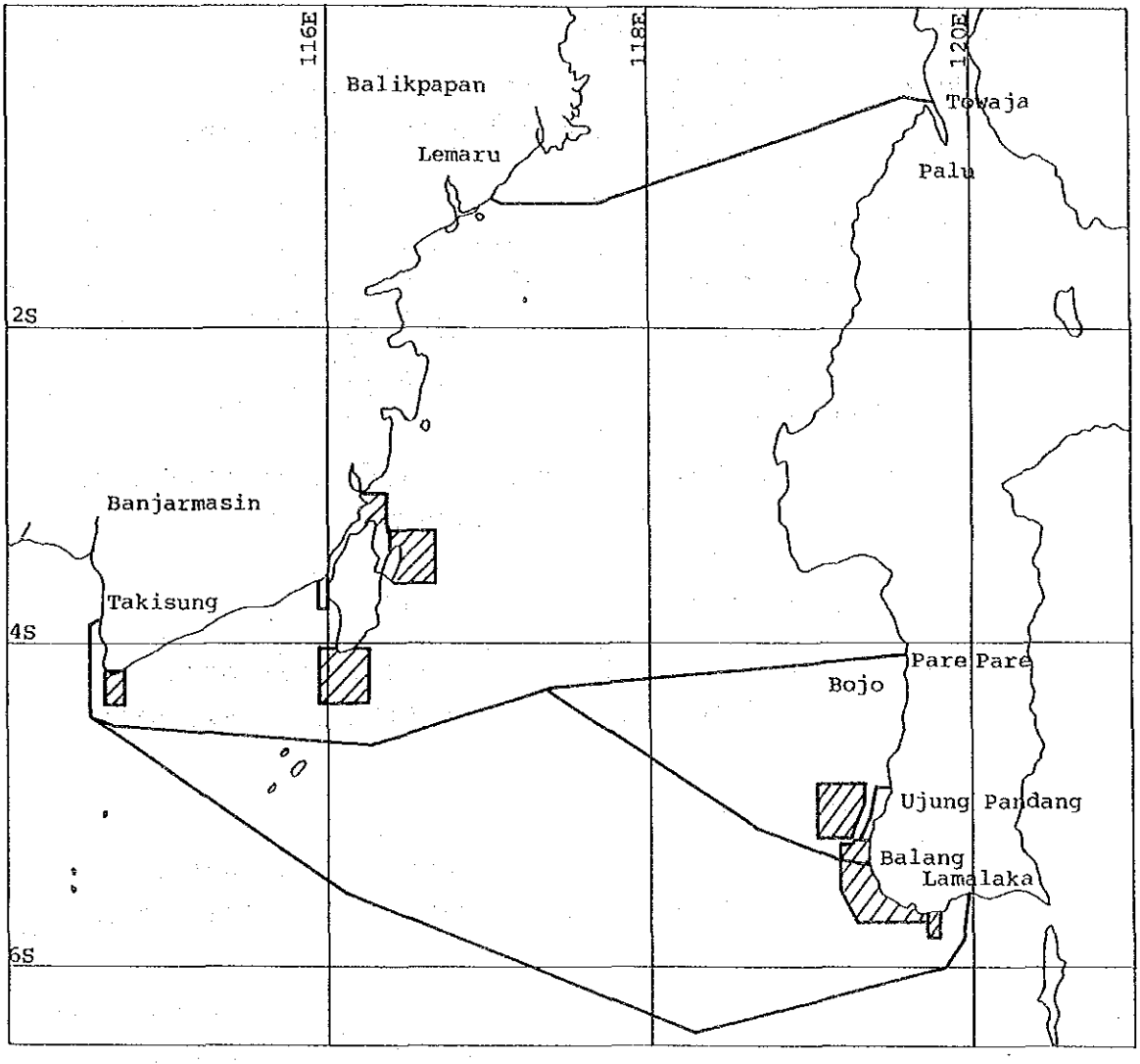
2. Data on Submarine Oil Field

2-1 Oil Development Area around Balikpapan



3. Data on Mine

3-1 Unswept Mine Area



3-2 Mine Danger Area (Data from Indonesian Navy)

(1) Kalimantan

1) Tg. Selatan Area

Unswept Area: Latitude 4°10'S., 4°22'S.
Longitude 114°36'E., 114°45'E.

2) Pulau Laut Area

Unswept Area: Latitude 4°03'00"S., 4°21'00"S.
Longitude 116°13'51"E., 115°57'51"E.

3) Slt. Laut Area

Unswept Area: Latitude 115°51'51"E., 116°01'51"E.
Longitude 3°48'00"S.

4) Slt. Laut Area

Unswept Area: Latitude 3°03'00"S., 3°19'00"S.
Longitude 116°06'51"E., 116°21'51"E.

5) Pulau Laut Area

Unswept Area: Latitude 3°18'00"S., 3°39'00"S.
Longitude 116°22'51"E., 116°40'51"E.

6) Pamukan Area

Unswept Area: Round Area of the Center Latitude
2°35'25"S. and Longitude 116°35'25"E.

7) Balikpapan Area

A) a. 1°15'20"S. — 116°46'53"E.
b. 1°17'35"S. — 116°46'57"E.
c. 1°17'50"S. — 116°47'19"E.
d. 1°18'35"S. — 116°47'40"E.
e. 1°19'40"S. — 116°48'40"E.
f. 1°23'50"S. — 116°45'40"E.
g. 1°24'50"S. — 116°46'00"E.
h. from g point to seashore with 335°

B) a. 1°15'10"S. — 116°55'55"E.
b. 1°19'15"S. — 116°55'55"E.
c. 1°19'18"S. — 116°54'38"E.
d. 1°19'35"S. — 116°52'42"E.
e. 1°19'30"S. — 116°49'50"E.
f. 1°18'20"S. — 116°48'50"E.
g. 1°18'00"S. — 116°48'38"E.
h. 1°17'25"S. — 116°49'15"E.
i. 1°16'30"S. — 116°48'10"E.
j. 1°16'25"S. — 116°48'22"E.

C) Unswept Area: Round Area of the Center
Latitude 1°19'05"S. and
Longitude 116°57'22"E.

(2) Sulawesi Area

1) Pare Pare Area

A) a. Tg. Lero
b. Barialai East Cape
c. Kg. Batu Tate West Seashore
d. 0.3 km North far from Kg. Batu Tete

B) a. East Boundary: Seashore
b. South Boundary: Latitude line through South End of Taka Tallange
c. West Boundary: Line between West point of Take Tallange and East point of Kg. Batu Laubang
d. North Boundary: Longitude line through Kg. Batu Laubang

2) Ujung Pandang

A) a. 5°11'00"S. — 119°01'51"E.
b. 4°52'00"S. — 119°01'51"E.
c. 4°52'00"S. — 119°21'12"E.
d. 4°52'15"S. — 119°21'59"E.
e. 4°52'48"S. — 119°22'10"E.
f. 4°59'25"S. — 119°20'02"E.
g. 5°00'30"S. — 119°19'45"E.
h. 5°00'30"S. — 119°19'49"E.
i. 5°03'51"S. — 119°19'49"E.
j. 5°06'59"S. — 119°21'20"E.
k. 5°06'59"S. — 119°15'44"E.
l. 5°11'00"S. — 119°11'40"E.

B) a. 5°06'53"S. — 119°24'25"E.
b. 5°06'56"S. — 119°23'35"E.
c. 5°07'37"S. — 119°22'32"E.
d. 5°03'30"S. — 119°20'40"E.
e. 5°01'00"S. — 119°20'42"E.
f. 4°59'51"S. — 119°20'50"E.
g. 5°00'00"S. — 119°21'00"E.
h. 4°52'27"S. — 119°22'42"E.
i. 4°52'46"S. — 119°23'38"E.
j. 4°52'00"S. — 119°25'02"E.
k. 4°52'00"S. — 119°25'51"E.
l. from j 119°26'51"E. longitude to seashore

C) a. 5°11'00"S. — 119°12'21"E.
b. 5°07'27"S. — 119°15'55"E.
c. 5°07'30"S. — 119°18'09"E.
d. 5°10'00"S. — 119°15'42"E.
e. 5°10'30"S. — 119°13'40"E.
f. 5°11'00"S. — 119°12'55"E.

D) a. 5°11'00"S. — 119°15'40"E.
b. 5°10'50"S. — 119°16'26"E.
c. 5°07'28"S. — 119°19'30"E.
d. 5°07'32"S. — 119°21'34"E.
e. 5°08'30"S. — 119°21'34"E.
f. 5°08'29"S. — 119°22'55"E.
g. 5°08'04"S. — 119°23'01"E.
h. 5°08'04"S. — 119°24'08"E.
i. 5°11'00"S. — 119°23'22"E.

E) a. 5°08'04"S. — 119°23'01"E.
b. 5°07'19"S. — 119°23'13"E.
c. 5°08'07"S. — 119°23'25"E.

3) Ujung Pandang West, and Tana Keke Str., Laigang and Malasoro Areas

a. 5°11'00"S. — 119°23'22"E.
b. 5°11'00"S. — 119°15'40"E.
c. 5°11'42"S. — 119°11'48"E.
d. 5°11'00"S. — 119°12'55"E.
e. 5°11'00"S. — 119°12'21"E.
f. 5°11'46"S. — 119°11'40"E.
g. 5°12'02"S. — 119°09'51"E.
h. 5°31'00"S. — 119°09'51"E.
i. 5°42'12"S. — 119°14'51"E.
j. 5°42'12"S. — 119°40'41"E.

4) Jeneponto Area

Unswept Area: Latitude 5°49'00"S.
Longitude 119°41'51"E., 119°45'51"E.

4. Data on Meteorology

4-1 (1/3) Banjarmasin Meteorology (3°26'S., 114°45'E.)

Average Sea Surface: 20m
(1936-1965)

Month	Average A-pressure	Temperature				Average Humidity		Fine Day		Rain		Wind																					Av. Wind Verocity		Days more than 7	0700 Fog	Thunder Days
		Daily High Average	Daily Low Average	Monthly High Av.	Monthly Low Av.	Measured	——	0800	1400	Average	Days more than 1mm	North	North-east	East	South-east	South	South-west	West	North-west	Calm	North	North-east	East	South-east	South	South-west	West	North-west	Calm			Measured	——			
	mb	℃	℃	℃	℃	%	%			mm		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	m/s	m/s			
1	1010	30	23	32	22	84	—	1	1	275	19	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1.5	—	0	0	8
2	1009	30	23	32	22	83	—	2	1	272	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.5	—	0	0	9
3	1010	31	23	33	22	82	—	3	1	319	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.1	—	0	☆	11
4	1009	31	24	33	22	81	—	6	2	228	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.1	—	1	1	11
5	1009	31	24	33	22	80	—	9	2	184	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.5	—	3	3	8
6	1009	31	23	33	21	79	—	11	3	129	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.5	—	0	☆	8
7	1009	30	23	32	21	78	—	12	3	172	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.5	—	1	1	6
8	1009	31	23	33	21	77	—	12	2	192	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.1	—	1	1	7
9	1010	31	23	33	21	73	—	13	2	173	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.5	—	0	0	5
10	1010	31	24	33	22	75	—	8	3	182	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.5	—	0	0	7
11	1009	30	23	33	22	81	—	5	1	285	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.5	—	1	1	14
12	1009	30	24	32	22	84	—	3	0	285	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.1	—	1	1	8
Av.	1009	31	23	34*	21**	80	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.5	—	—	—	—
G.T.	—	—	—	—	—	—	—	85	21	2696	169	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	9	102
E.V.	—	—	—	35+	19++	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Year	30																												30				

* Yearly High Average ** Yearly Low Average + Highest Temperature ++ Lowest Temperature ☆ Very few

Av. = Average E.V. = Extreme Value G.T. = Grand Total

4-1 (2/3) Balikpapan Meteorology (1°16'S., 116°54'E.)

Average Sea Surface: 3m
(1951-1965)

Month	Average A-pressure	Temperature				Average Humidity		Fine Day		Rain		Wind																			Av. Wind Verocity		Days more than 7	0700 Fog	Thunder Days
		Daily High Average	Daily Low Average	Monthly High Av.	Monthly Low Av.	Measured	——	0800	1400	Average	Days more than 1mm	North	North-east	East	South-east	South	South-west	West	North-west	Calm	North	North-east	East	South-east	South	South-west	West	North-west	Calm	Measured	——			
	mb	℃	℃	℃	℃	%	%			mm		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	m/s	m/s			
1	1009	29	23	33	21	82	—	2	2	187	14	27	4	15	9	4	3	2	12	24	—	—	—	—	—	—	—	—	—	2.6	—	0	0	3
2	1009	30	23	33	22	81	—	3	1	172	18	22	9	24	7	6	☆	2	9	21	—	—	—	—	—	—	—	—	—	3.1	—	0	1	1
3	1009	30	23	34	21	81	—	3	2	249	15	15	5	17	8	10	2	5	15	23	—	—	—	—	—	—	—	—	—	3.6	—	1	1	3
4	1009	29	23	32	21	82	—	4	3	196	15	8	5	14	9	12	4	11	17	20	—	—	—	—	—	—	—	—	—	3.6	—	1	0	3
5	1008	29	23	33	22	83	—	2	4	223	13	6	2	8	11	23	6	8	23	13	—	—	—	—	—	—	—	—	—	3.6	—	1	0	3
6	1009	29	23	32	21	82	—	5	5	265	12	3	1	3	6	34	11	17	15	10	—	—	—	—	—	—	—	—	—	3.1	—	0	0	4
7	1009	28	23	29	20	82	—	4	6	244	11	☆	0	☆	2	53	12	22	7	4	—	—	—	—	—	—	—	—	—	3.6	—	☆	1	1
8	1009	29	23	30	21	80	—	2	4	230	11	☆	0	☆	3	38	27	15	11	5	—	—	—	—	—	—	—	—	—	4.1	—	1	0	3
9	1009	29	23	31	19	77	—	3	5	221	9	1	0	1	6	25	29	21	10	6	—	—	—	—	—	—	—	—	—	3.6	—	0	0	5
10	1009	29	23	33	21	78	—	3	4	140	9	4	1	2	7	18	28	20	11	9	—	—	—	—	—	—	—	—	—	3.1	—	0	1	3
11	1009	29	23	33	21	80	—	3	3	177	12	11	1	12	6	22	12	11	13	12	—	—	—	—	—	—	—	—	—	2.6	—	1	0	2
12	1009	29	23	33	21	79	—	3	1	235	15	16	3	7	9	17	7	11	19	12	—	—	—	—	—	—	—	—	—	2.6	—	0	0	1
Av.	1009	29	23	—	—	81	—	—	—	—	—	9	3	9	7	22	12	12	13	13	—	—	—	—	—	—	—	—	—	3.1	—	—	—	—
G.T.	—	—	—	—	—	—	—	37	40	2539	147	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	32
E.V.	—	—	—	34+	19++	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Year	15											3									———									3		15		

+ Highest Temperature ++ Lowest Temperature ☆ Very few

4-1 (3/3) Ujung Pandang Meteorology (5°04'S., 119°33'E.)

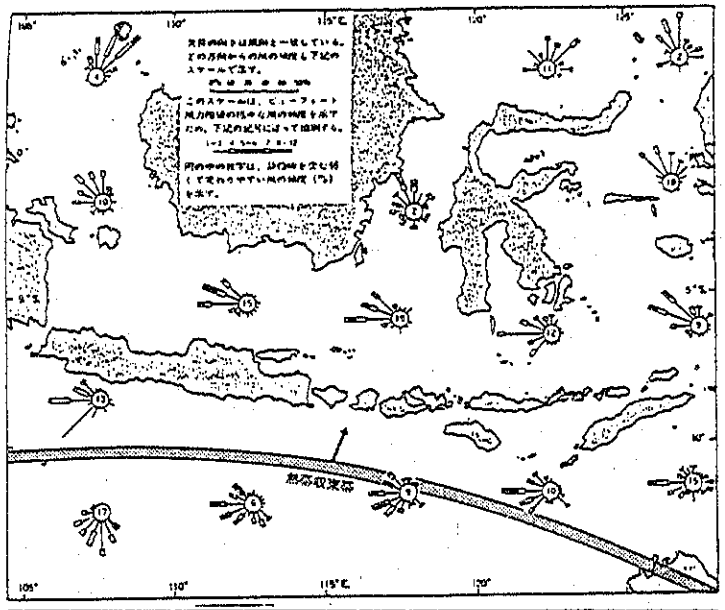
Average Sea Surface: 2m
(1936-1965)

Month	Average A-pressure	Temperature				Average Humidity		Fine Day		Rain		Wind																Av. Wind Verocity		Days more than 7	0700 Fog	Thunder Days
		Daily High Average	Daily Low Average	Monthly High Av.	Monthly Low Av.	Measured	——	0800	1400	Average	Days more than 1mm	North	North-east	East	South-east	South	South-west	West	North-west	Calm	North	North-east	East	South-east	South	South-west	West	North-west	Calm	Measured	——			
	mb	℃	℃	℃	℃	%	%			mm		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	m/s	m/s			
1	1009	29	23	31	22	85	74	5	—	461	25	11	6	25	8	7	2	10	8	23	—	—	—	—	—	—	—	—	2.1	—	☆	0	8
2	1010	29	24	31	22	86	75	4	—	342	20	10	8	26	7	6	1	8	9	25	—	—	—	—	—	—	—	—	1.5	—	☆	0	7
3	1010	30	23	31	22	86	74	4	—	370	18	10	6	31	6	6	3	9	10	19	—	—	—	—	—	—	—	—	2.1	—	0	0	7
4	1010	30	23	32	22	84	59	3	—	156	11	6	2	29	10	5	1	9	9	29	—	—	—	—	—	—	—	—	1.5	—	0	0	7
5	1011	31	23	32	21	73	55	3	—	62	8	4	2	18	12	8	2	10	6	38	—	—	—	—	—	—	—	—	1.0	—	0	0	7
6	1011	30	22	32	20	70	52	3	—	21	6	6	5	17	8	7	4	10	5	38	—	—	—	—	—	—	—	—	1.5	—	0	0	☆
7	1012	30	21	32	18	69	49	1	—	14	4	6	3	18	9	9	4	11	6	34	—	—	—	—	—	—	—	—	1.5	—	0	0	1
8	1011	31	21	32	18	65	48	1	—	2	2	4	5	23	7	9	2	15	5	30	—	—	—	—	—	—	—	—	2.1	—	0	0	1
9	1011	31	21	32	18	64	49	1	—	5	2	4	4	19	9	5	4	27	5	23	—	—	—	—	—	—	—	—	2.1	—	0	0	2
10	1010	31	22	32	20	65	53	3	—	26	4	3	3	23	12	10	4	21	4	20	—	—	—	—	—	—	—	—	2.1	—	0	0	5
11	1010	30	23	32	21	71	59	3	—	84	12	4	2	26	18	3	2	18	4	23	—	—	—	—	—	—	—	—	1.5	—	0	0	13
12	1009	29	23	31	22	80	71	4	—	509	22	10	4	29	8	9	2	8	8	22	—	—	—	—	—	—	—	—	2.1	—	0	0	9
Av.	1010	30	22	31*	17**	75	60	3	—	—	—	6	4	24	9	7	3	13	7	27	—	—	—	—	—	—	—	—	2.1	—	—	—	—
G.T.	—	—	—	—	—	—	—	—	—	2052	134	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.1	☆	67
E.V.	—	—	—	35+	14++	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Year		30																											30				

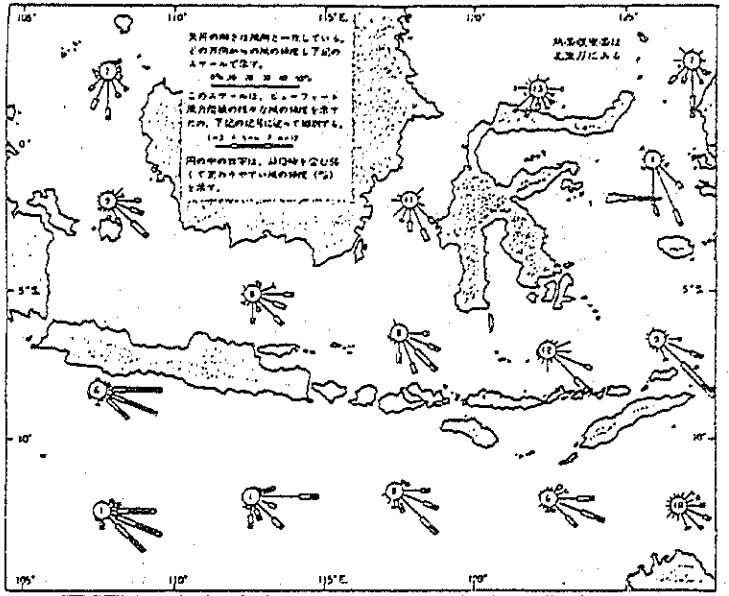
* Yearly High Average ** Yearly Low Average + Highest Temperature ++ Lowest Temperature ☆ Very few
Av. = Average E.V. = Extreme Value G.T. = Grand Total

4-2 Average Location of Wind Distribution and Tropical Wave

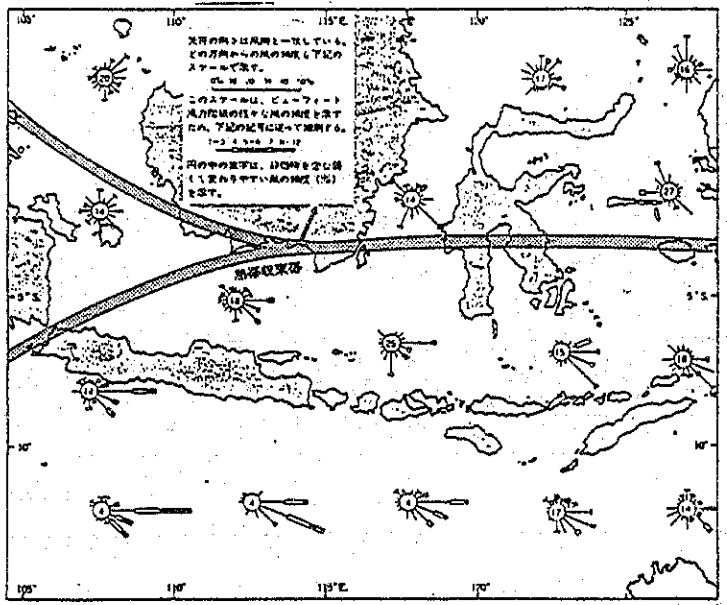
Jan.



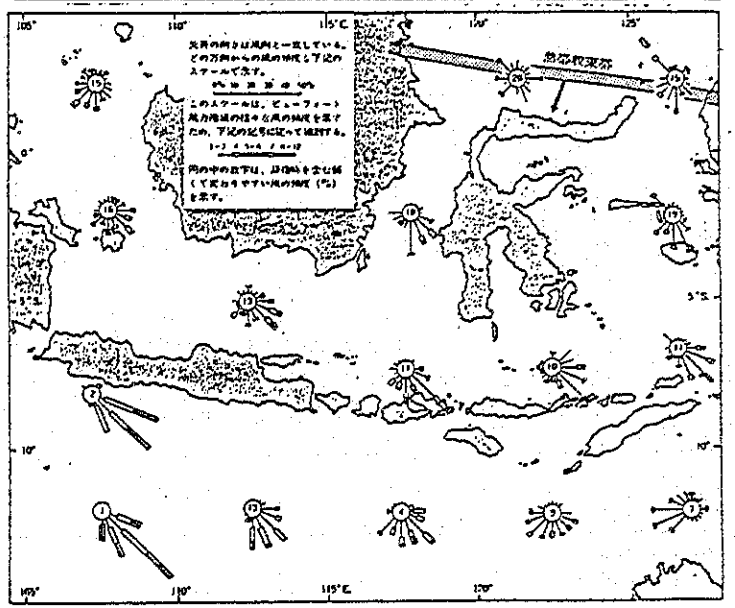
Jul.



Apr.

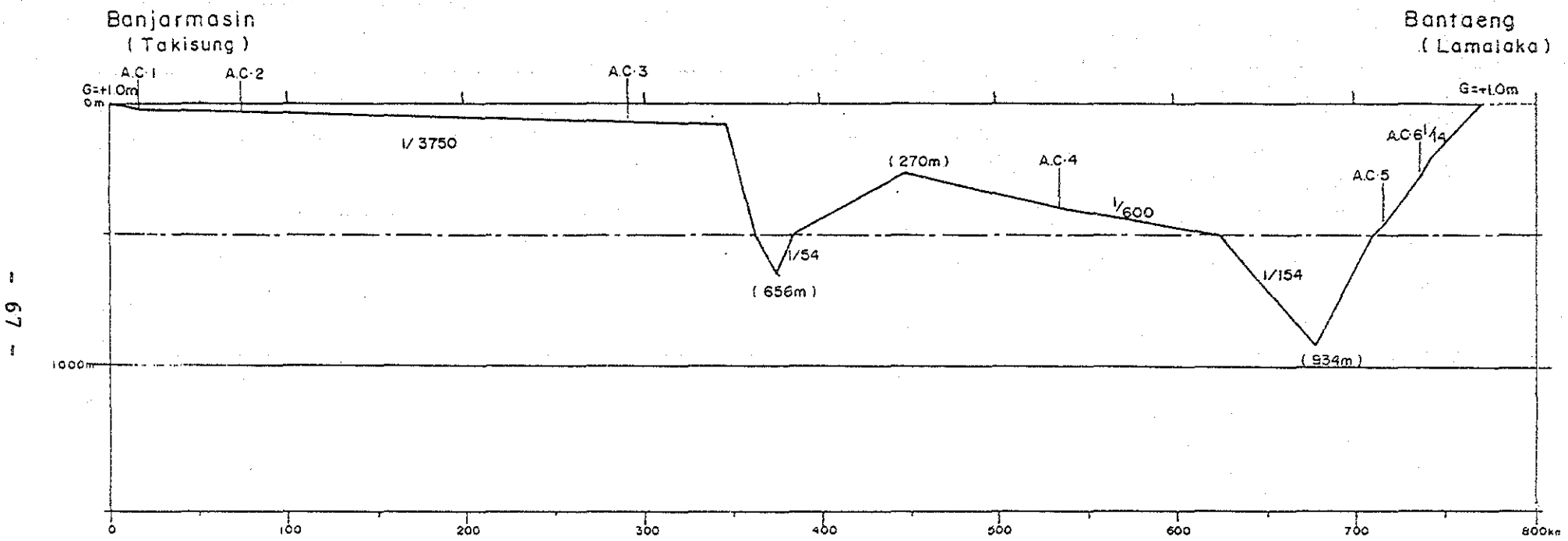


Oct.

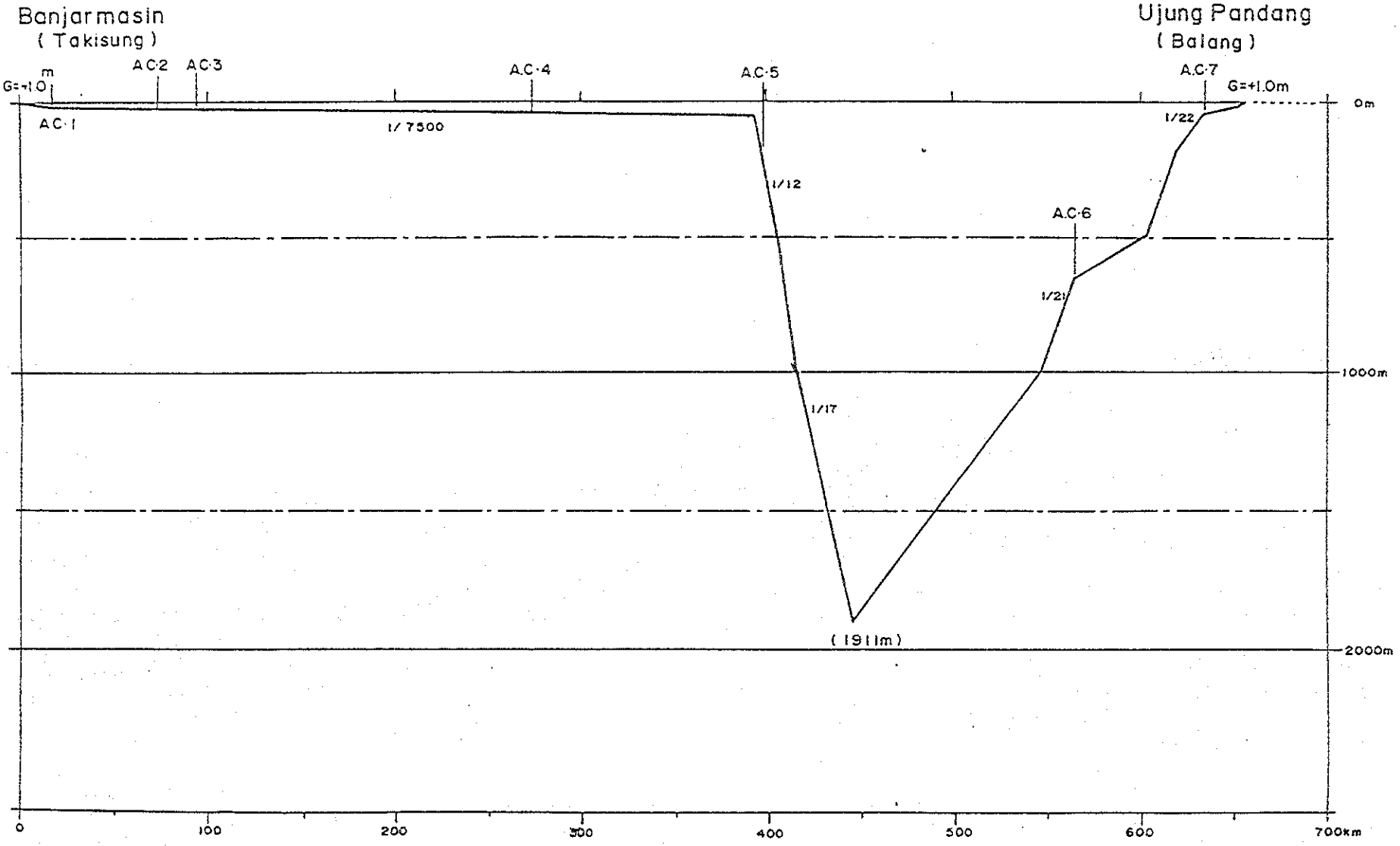


5. Cross Section of Sea Bottom

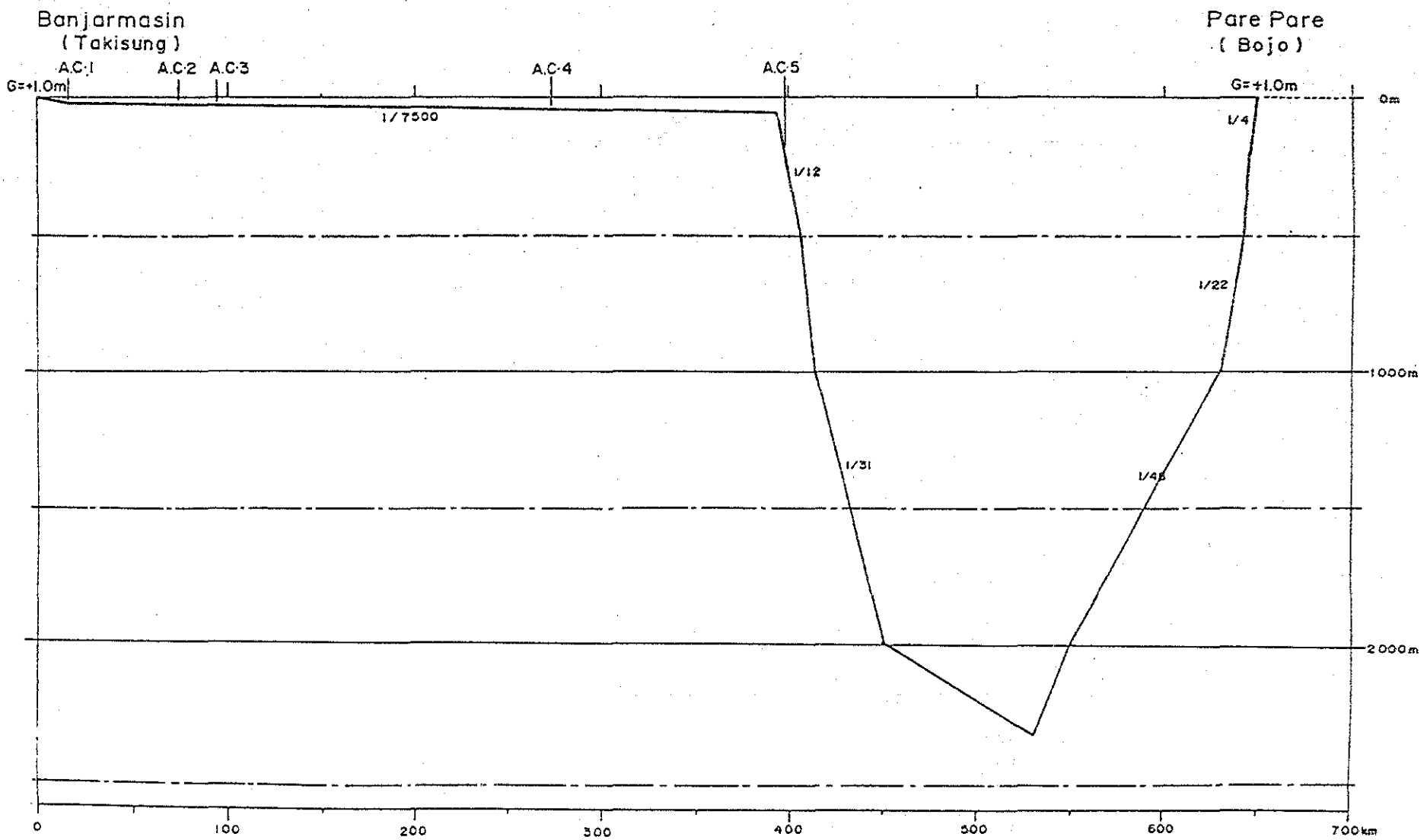
5-1 Cross Section of Sea Bottom (Plan-1A)



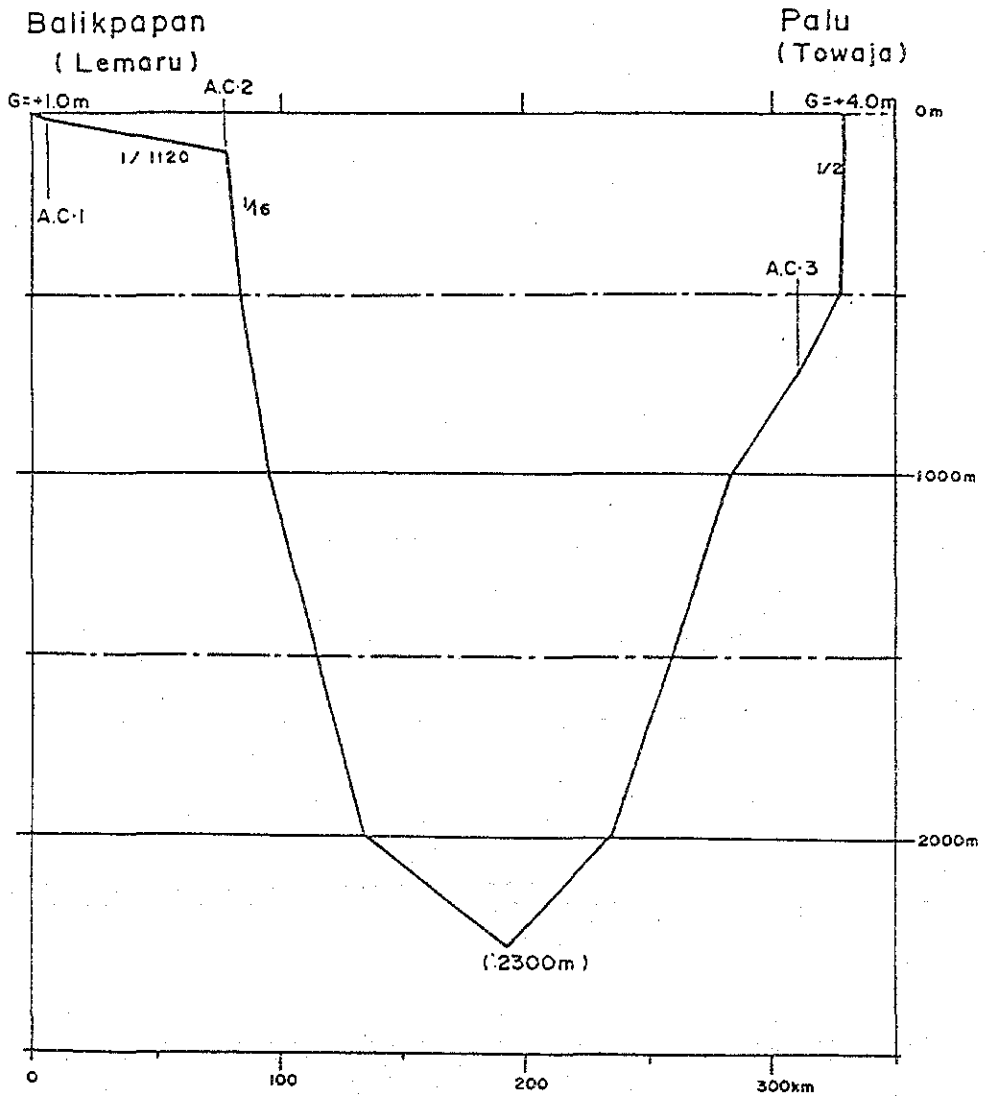
5-2 Cross Section of Sea Bottom (Plan-1B)



5-3 Cross Section of Sea Bottom (Plan-1C)



5-4 Cross Section of Sea Bottom (Plan-2)



6. Location of Planned Cable Route

6-1 Position List on the Proposed Cable Route (Plan-1A)

Banjarmasin - Bantaeng

Pos.No. L.P.A/S	Position		Depth (m)	Distance (km)	
	Latitude (S)	Longitude (E)		Between	Cumulation
Takisung L.P	3 - 52.4	114 - 36.7	G=+1.0m		0
1	3 - 56.8	114 - 28.9	20	17	(9.18 nm) 17
2	4 - 28.0	114 - 29.0	27	57	(39.96) 74
3	5 - 35.0	116 - 05.8	60	218	(157.67) 292
	5 - 48.5	116 - 41.5	200	60	(190.06) 352
	5 - 50.5	116 - 47.0	500	10	(195.46) 362
	5 - 52.8	116 - 53.7	656	13	(202.48) 375
	5 - 54.7	116 - 58.0	500	9	(207.34) 384
4	6 - 22.6	118 - 14.8	400	150	(288.34) 534
	6 - 11.5	119 - 02.0	500	89	(336.39) 623
	6 - 05.0	119 - 29.3	934	53	(365.01) 676
	6 - 01.0	119 - 47.0	500	33	(382.83) 709
5	6 - 00.0	119 - 50.0	469	6	(386.07) 715
6	5 - 52.0	119 - 56.4	300	19	(396.33) 734
	5 - 48.3	119 - 57.0	200	8	(400.65) 742
	5 - 35.2	119 - 58.5	20	26	(414.69) 768
Bantaeng L.P	5 - 33.7	119 - 58.9	G=+1.0m	4	(416.85) 772

1 n·m is equivalent to 1,852 m.

6-2 Position List on the Proposed Cable Route (Plan-1B)

Banjarmasin - Balang

Pos.No. L.P,A/S	Position		Depth(m)	Distance(km)	
	Latitude(S)	Longitude(E)		Between	Cumulation
Takisung L.P	3 - 52.4	114 - 36.7	G=+1.0m		0
1	3 - 56.8	114 - 28.9	20	17	(9.18nm) 17
2	4 - 28.0	114 - 29.0	27	57	(39.96) 74
3	4 - 33.0	114 - 38.3	29	20	(50.76) 94
4	4 - 35.3	116 - 15.3	47	179	(147.41) 273
5	4 - 15.0	117 - 18.8	200	123	(213.82) 396
	4 - 17.0	117 - 21.0	500	6	(217.06) 402
	4 - 20.3	117 - 26.0	1000	10	(222.46) 412
	4 - 30.0	117 - 40.0	1911	32	(239.74) 444
	5 - 02.5	118 - 26.0	1000	103	(295.36) 547
6	5 - 07.8	118 - 34.0	650	17	(304.54) 564
	5 - 16.5	118 - 54.3	500	40	(326.13) 604
	5 - 17.0	119 - 02.0	200	14	(333.69) 618
7	5 - 20.8	119 - 10.0	40	16	(342.33) 634
	5 - 22.5	119 - 18.3	20	16	(350.97) 650
Balang L. P	5 - 23.1	119 - 21.4	G=+1.0m	6	(354.21) 656

1 n·m is equivalent to 1,852 m.

6-3 Position List on the Proposed Cable Route (Plan-1C)

Banjarmasin - Pare Pare

Pos.No.	Position		Depth(m)	Distance(km)	
L.P,A/S	Latitude(S)	Longitude(E)		Between	Cumulation
Takisung L.P	3 - 52.4	114 - 36.7	G=+1.0m		0
1	3 - 56.8	114 - 28.9	20	17	(9.18 n m) 17
2	4 - 28.0	114 - 29.0	27	57	(39.96) 74
3	4 - 33.0	114 - 38.3	29	20	(50.76) 94
4	4 - 35.3	116 - 15.3	47	179	(147.41) 2 3
5	4 - 15.0	117 - 18.8	200	123	(213.82) 396
	4 - 15.0	117 - 22.2	500	7	(217.60) 403
	4 - 14.7	117 - 27.5	1000	9	(222.46) 412
	4 - 11.0	118 - 18.0	2000	92	(272.14) 504
	4 - 10.0	118 - 33.0	2333	28	(287.26) 532
	4 - 09.3	119 - 42.3	2000	17	(296.44) 549
	4 - 06.0	119 - 26.3	1000	81	(340.17) 630
	4 - 05.5	119 - 32.9	500	12	(346.65) 642
	4 - 05.4	119 - 34.2	200	3	(348.27) 645
	4 - 05.5	119 - 36.4	20	4	(350.43) 649
Pare Pare L.P	4 - 05.2	119 - 36.9	G=+1.0m	1	(350.97) 650

1 n•m is equivalent to 1,852 m.

6-4 Position Lits on the Proposed Cable Route (Plan-2)

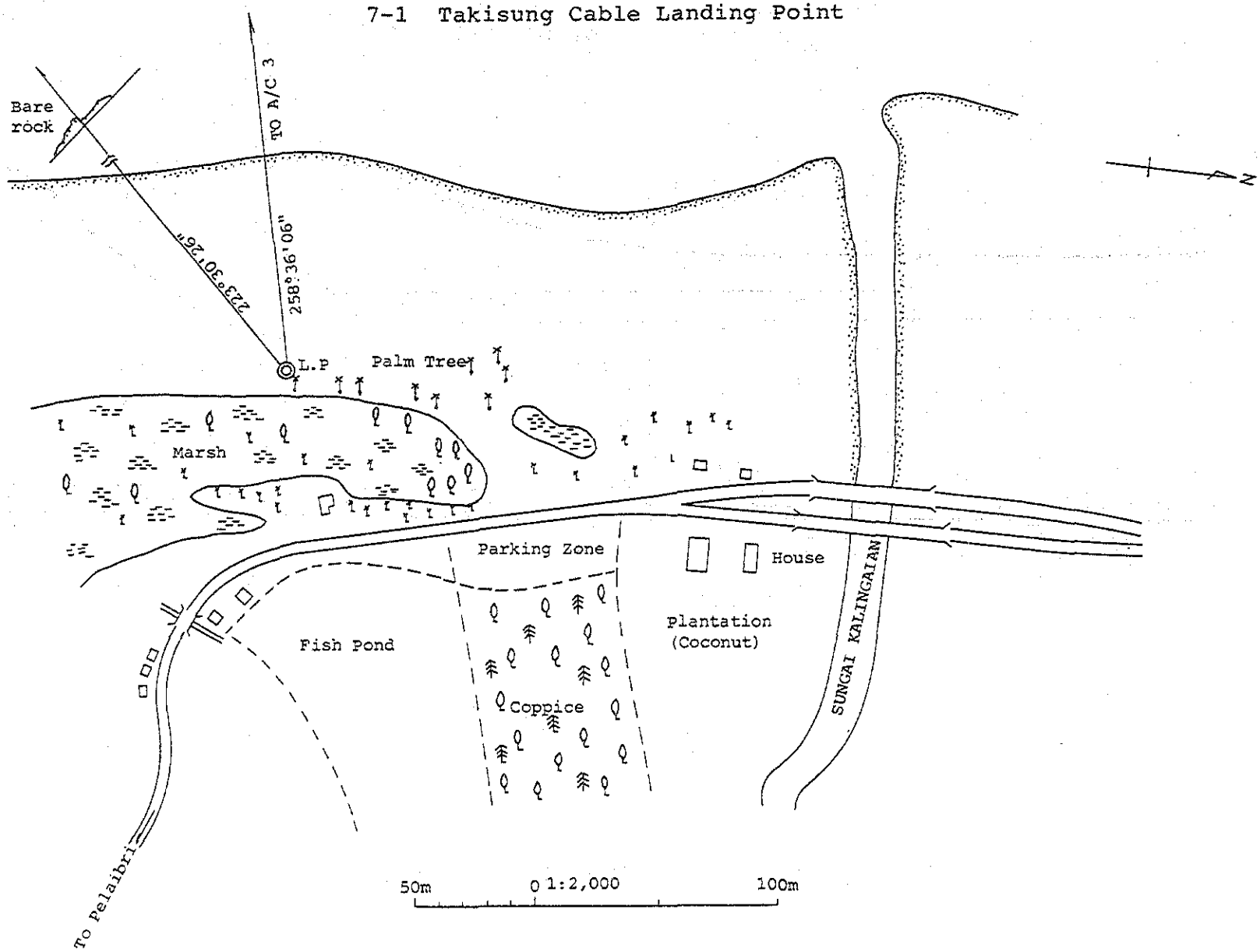
Balikpapan - Palu

Pos.No.	Position		Depth(m)	Distance(km)	
L.P, A/S	Latitude(S)	Longitude(E)		Between	Cumulation
Lemalu L.P	1 - 12.2	116 - 59.8	G=+1.0m		0
1	1 - 13.8	117 - 03.2	20	7	(3.78 nm) 7
2	1 - 14.0	117 - 42.0	200	72	(42.66) 79
	1 - 13.0	117 - 44.5	500	5	(45.36) 84
	1 - 11.2	117 - 49.7	1000	11	(51.30) 95
	1 - 04.2	118 - 10.0	2000	40	(72.89) 135
	0 - 53.0	118 - 40.0	2300	59	(104.75) 194
	0 - 45.3	119 - 01.0	2000	42	(127.43) 236
	0 - 37.0	119 - 25.0	1000	48	(153.35) 284
3	0 - 32.0	119 - 38.0	730	27	(167.93) 311
	0 - 36.0	119 - 47.0	500	18	(177.65) 329
	0 - 36.0	119 - 47.4	200	0.5	(177.92) 329.5
Palu L.P	0 - 36.0	119 - 47.6	G=+4.0m	0.5	(178.19) 330.

1 n·m is equivalent to 1,852 m.

7. Submarine Cable Landing Point

7-1 Takisung Cable Landing Point



7-2 Lamalaka Cable Landing Point