Table VI-1-1 (4/12) Number of Trunk Circuits Year: 1994

PC	Phase	Name of Exchange Office	Capacity	O. G.		I. C.			Total No. of Circuits	Remarks
				Traffic (erl)	No. of Circuits	General		No. of Misc. Circuits		
						Traffic (erl)	No. of Circuits			
Pandi	I	Bulacan	400	4.20	10	2.52	8	4	22	
	I	San Ildefonso	500	5.16	11	3.10	8	4	23	
	I	San Rafael	300	3.36	9	2.02	7	4	20	
	I	Angat	400	4.32	10	2.59	8	4	22	
	I	Pandi	300	2.52	-	1.51	-	-	-	TS + LE
Dinalupihan	I	Abucay	300	3.48	9	2.09	7	4	20	
	I	Dinalupihan	500	5.64	-	3.38	-	-	-	TS + LE
	I	Samal	300	3.12	8	1.87	6	4	18	
	II	Bagac	40	-	-	-	-	-	6	IPTS
	II	Pilar	40	-	-	-	-	-	6	IPTS
		Private Co.'s			50		37	16	103	
Batangas	I	Agoncillo	40	-	-	-	-	-	6	IPTS
	I	Calaca	300	2.64	8	1.58	6	4	18	
	I	Ibaan	400	4.68	11	2.81	8	4	23	
	I	Padre Garcia	40	-	-	-	-	-	6	IPTS
	I	Lubang	40	- -	-	-	-	-	6	IPTS
	II	Alitagtag	40	-	-	-	-	-	6	IPTS
	II	San Luis	40	-	-	-	-	-	6	IPTS
	II	San Nicolas	40	-	-	-	-	-	6	IPTS
	II	Santa Teresita	40	-	-	-	-	-	6	IPTS
	II	Taysan	40	-	-	-	-	-	6	IPTS
	II	Tingloy	40	-	-	-	-	-	6	IPTS
	II	Tuy	40	-	-	-	-	-	6	IPTS
	II	Looc	40	-	-	-	-	-	6	IPTS
	II	Balite	40	-	-	-	-	-	6	IPTS
	II	Laurel	40	-	-	-	-	-	6	IPTS
	II	Mataasnakahoy	40	-	-	-	-	-	6	IPTS
		Private Co.'s			249		168	32	449	
Lucena	II	Dolores	40	-	-	-	-	-	6	IPTS
	II	San Antonio	40	-	-	-	-	-	6	IPTS

Table VI-1-1 (5/12) Number of Trunk Circuits Year: 1994

PC	Phase	Name of Exchange Office	Capacity	O. G.		I. C.			Total No. of Circuits	Remarks
				Traffic (erl)	No. of Circuits	General		No. of Misc. Circuits		
						Traffic (erl)	No. of Circuits			
Unisan	II	Unisan	200	2.40	-	1.44	-	-	-	TS + LE
	II	Catanauan	500	5.76	12	3.46	9	4	25	
	II	Guinayangan	300	2.88	8	1.73	6	4	18	
	II	Mulanay	300	2.76	8	1.66	6	4	18	
	II	San Narciso	300	2.88	8	1.73	6	4	18	
	II	Agdangan	40	-	-	-	-	-	6	IPTS
	II	Alabat	40	-	-	-	-	-	6	IPTS
	II	Buenavista	40	-	-	-	-	-	6	IPTS
	II	General Luna	40	-	-	-	-	-	6	IPTS
	II	Macalelon	40	-	-	-	-	-	6	IPTS
	II	San Francisco	40	-	-	-	-	-	6	IPTS
	II	Perez	40	-	-	-	-	-	6	IPTS
	II	Pitogo	40	-	-	-	-	-	6	IPTS
	II	Plaridel	40	-	-	-	-	-	6	IPTS
	II	Quezon	40	-	-	-	-	-	6	IPTS
	II	San Andres	40	-	-	-	-	-	6	IPTS
San Jose	I	Mamburao	300	2.52	8	1.51	6	4	18	
	I	Sablayan	400	4.80	11	2.88	8	4	23	
	I	San Jose	1000	17.82	-	10.70	-	-	-	TS + LE
	II	Calintaan	40	-	-	-	-	-	6	IPTS
	II	Magsaysay (O.C.C. Mindoro	40	-	-	-	-	-	6	IPTS
	II	Paluan	40	-	-	-	-	-	6	IPTS
	II	Rizal	40	-	-	-	-	-	6	IPTS
	II	Santa Cruz	40	-	-	-	-	-	6	IPTS
	II	Bulalacao	40	-	-	-	-	-	6	IPTS
	II	Aborlan	40	-	-	-	-	-	6	IPTS
	II	Agutaya	40	-	-	-	-	-	6	IPTS
	II	Araceli	40	-	-	-	-	-	6	IPTS
	II	Balabac	40	-	-	-	-	-	6	IPTS
	II	Batarasa	40	-	-	-	-	-	6	IPTS
	II	Busuanga	40	-	-	-	-	-	6	IPTS
	II	Cagayancillo	40	-	-	-	-	-	6	IPTS
	II	Coron	40	-	-	-	-	-	6	IPTS
	II	Cuyo	40	-	-	-	-	-	6	IPTS
	II	Dumaran	40	-	-	-	-	-	6	IPTS
	II	El-Nido-Bacuit	40	-	-	-	-	-	6	IPTS

Table VI-1-1 (6/12) Number of Trunk Circuits Year: 1994

PC	Phase	Name of Exchange Office	Capacity	O. G.		I. C.			Total No. of Circuits	Remarks
				Traffic (erl)	No. of Circuits	General		No. of Misc. Circuits		
						Traffic (erl)	No. of Circuits			
San Jose	II	Linapacan	40	-	-	-	-	-	6	IPTS
	II	Magsaysay (Palawan)	40	-	-	-	-	-	6	IPTS
	II	Narra Aborlan	40	-	-	-	-	-	6	IPTS
	II	Quezon	40	-	-	-	-	-	6	IPTS
	II	San Vicente	40	-	-	-	-	-	6	IPTS
	II	Taytay	40	-	-	-	-	-	6	IPTS
	II	Abra de Ilog	40	-	-	-	-	-	6	IPTS
Calapan	I	Bongabong	400	4.80	11	2.88	8	4	23	
	I	Naujan	300	3.60	9	2.16	7	4	20	
	I	Roxas	300	3.00	8	1.80	6	4	18	
	I	Victoria	300	3.12	8	1.87	6	4	18	
	I	Odiongan	300	2.76	8	1.66	6	4	18	
	I	Romblon	300	2.64	8	1.58	6	4	18	
	I	Gloria	40	-	-	-	-	-	6	IPTS
	I	Puerto Galera	40	-	-	-	-	-	6	IPTS
	I	Socorro	40	-	-	-	-	-	6	IPTS
	I	San Agustin	40	-	-	-	-	-	6	IPTS
	II	Baco	40	-	-	-	-	-	6	IPTS
	II	Bansud	40	-	-	-	-	-	6	IPTS
	II	Mansalay	40	-	-	-	-	-	6	IPTS
	II	Pola	40	-	-	-	-	-	6	IPTS
	II	San Teodoro	40	-	-	-	-	-	6	IPTS
	II	Alcantara	40	-	-	-	-	-	6	IPTS
	II	Banton	40	-	-	-	-	-	6	IPTS
	II	Cajidiocan	40	-	-	-	-	-	6	IPTS
	II	Calatrava	40	-	-	-	-	-	6	IPTS
	II	Concepcion	40	-	-	-	-	-	6	IPTS
	II	Corcuera	40	-	-	-	-	-	6	IPTS
	II	Looc	40	-	-	-	-	-	6	IPTS
	II	Magdiwang	40	-	-	-	-	-	6	IPTS
	II	San Andres	40	-	-	-	-	-	6	IPTS
	II	San Fernando	40	-	-	-	-	-	6	IPTS
	II	San Jose	40	-	-	-	-	-	6	IPTS
	II	Santa Fe	40	-	-	-	-	-	6	IPTS
	II	Lobo	40	-	-	-	-	-	6	IPTS
		Private Co.'s			45		31	8	84	

Table VI-1-1 (7/12) Number of Trunk Circuit Year: 1994

PC	Phase	Name of Exchange Office	Capacity	O. G.		I. C.			Total No. of Circuits	Remarks
				Traffic (erl)	No. of Circuits	General		No. of Misc. Circuits		
						Traffic (erl)	No. of Circuits			
Manila	II	Burdeos	40	-	-	-	-	-	6	IPTS
	II	G. Nakar	40	-	-	-	-	-	6	IPTS
	II	Jumalig	40	-	-	-	-	-	6	IPTS
	II	Panukulan	40	-	-	-	-	-	6	IPTS
	II	Patnanangan	40	-	-	-	-	-	6	IPTS
	II	Pollilo	40	-	-	-	-	-	6	IPTS
	II	Real	40	-	-	-	-	-	6	IPTS
	II	Kalayaan	40	-	-	-	-	-	6	IPTS
	II	Mabitac	40	-	-	-	-	-	6	IPTS
	II	Pakil	40	-	-	-	-	-	6	IPTS
	II	Pangil	40	-	-	-	-	-	6	IPTS
	II	Pila	40	-	-	-	-	-	6	IPTS
	II	Rizal	40	-	-	-	-	-	6	IPTS
	II	Siniloan	40	-	-	-	-	-	6	IPTS
	II	Victoria	40	-	-	-	-	-	6	IPTS
	II	Magallanes	40	-	-	-	-	-	6	IPTS
	II	Ternate	40	-	-	-	-	-	6	IPTS

Table VI-1-1 (8/12) Number of Trunk Circuits Year: 2001

PC	Phase	Name of Exchange Office	Capacity	O. G.		I. C.			Total No. of Circuits	Remarks
				Traffic (erl)	No. of Circuits	General		No. of Misc. Circuits		
						Traffic (erl)	No. of Circuits			
Cabanatuan	I	Aliaga	500	5.28	12	3.17	9	4	25	
	I	Cabiao	500	5.16	11	3.10	8	4	23	
	I	Jaen	600	7.08	14	4.25	10	4	28	
	I	Pantabangan	500	5.88	12	3.53	9	4	25	
	I	San Antonio	600	6.60	13	3.96	10	4	27	
	I	Sta Rosa	500	5.76	12	3.46	9	4	25	
	I	Quezon	300	3.24	9	1.94	7	4	20	
	I	Zaragosa	300	3.60	9	2.16	7	4	20	
	II	Carranglan	400	4.08	10	2.45	7	4	21	
	II	Gabaldon	300	3.00	8	1.80	6	4	18	
	II	G.M. Natividad	300	3.48	9	2.09	7	4	20	
	II	Nampicuan	40	-	-	-	-	-	6	IPTS
	II	Penaranda	500	5.52	12	3.31	9	4	25	
	II	Baler	300	3.12	8	1.87	6	4	18	
	II	Casiguran	300	2.88	8	1.73	6	4	18	
	II	Dilasag	40	-	-	-	-	-	6	IPTS
	II	Dinalongan	40	-	-	-	-	-	6	IPTS
	II	Dingalan	40	-	-	-	-	-	6	IPTS
	II	Dipaculao	300	2.88	8	1.73	6	4	18	
	II	Maria Aurora	600	6.12	13	3.67	9	4	26	
	II	San Luis	40	-	-	-	-	-	6	IPTS
		Private Co.'s			403		280	76	759	
Tarlac	I	Gerona	700	7.44	15	4.46	10	4	29	
	I	La Paz	600	6.48	13	3.89	10	4	27	
	II	Anao	40	-	-	-	-	-	6	IPTS
	II	Mayantoc	300	2.64	8	1.58	6	4	18	
	II	Ramos	200	2.40	7	1.44	6	3	16	
	II	San Manuel	40	-	-	-	-	-	6	IPTS
Olongapo	I	Botolan	600	6.36	13	3.82	10	4	27	
	I	Iba	700	8.04	15	4.82	11	4	30	
S. F. P.	I	Magalang	400	4.80	11	2.88	8	4	23	
	I	Porac	700	7.56	15	4.54	11	4	30	
	I	Sexmoan	200	2.28	7	1.37	6	3	16	
	II	San Simon	300	2.64	8	1.58	6	4	18	

Table VI-1-1 (9/12) Number of Trunk Circuits Year: 2001

PC	Phase	Name of Exchange Office	Capacity	O. G.		I. C.			Total No. of Circuits	Remarks
				Traffic (erl)	No. of Circuits	General		No. of Misc. Circuits		
						Traffic (erl)	No. of Circuits			
Pandi	I	Bulacan	600	7.20	14	4.32	10	4	28	
	I	San Ildefonso	800	8.88	16	5.33	12	4	32	
	I	San Rafael	500	5.64	12	3.38	9	4	25	
	I	Angat	600	6.96	14	4.18	10	4	28	
	I	Pandi	400	4.32	-	2.59	-	-	-	TS + LE
Dinalupihan	I	Abucay	500	5.88	12	3.53	9	4	25	
	I	Dinalupihan	800	9.48	-	5.69	-	-	-	TS + LE
	I	Samal	500	5.40	12	3.24	9	4	25	
	II	Bagac	300	2.76	8	1.66	6	4	18	
	II	Pilar	400	4.20	10	2.52	8	4	22	
		Private Co.'s			76		54	16	146	
Batangas	I	Agoncillo	40	-	-	-	-	-	6	IPTS
	I	Calaca	400	4.56	11	2.74	8	4	23	
	I	Ibaan	700	7.92	15	4.75	11	4	30	
	I	Padre Garica	400	3.72	9	2.23	7	4	20	
	I	Lubang	300	3.24	9	1.94	7	4	20	
	II	Alitagtag	300	2.88	8	1.73	6	4	18	
	II	San Luis	300	2.76	8	1.66	6	4	18	
	II	San Nicolas	40	-	-	-	-	-	6	IPTS
	II	Santa Teresita	200	1.92	7	1.15	5	3	15	
	II	Taysan	200	1.92	7	1.15	5	3	15	
	II	Tingloy	300	2.52	8	1.51	6	4	18	
	II	Tuy	300	3.48	9	2.09	7	4	20	
	II	Looc	200	2.40	7	1.44	6	3	16	
	II	Balite	40	-	-	-	-	-	6	IPTS
	II	Laurel	300	3.12	8	1.87	6	4	18	
	II	Mataasnakahoy	300	2.88	8	1.73	6	4	18	
		Private Co.'s			502		336	68	906	
Lucena	II	Dolores	200	2.04	7	1.22	5	3	15	
	II	San Antonio	300	2.64	8	1.58	6	4	18	

Table VI-1-1 (10/12) Number of Trunk Circuits Year: 2001

PC	Phase	Name of Exchange Office	Capacity	O. G.		I. C.			Total No. of Circuits	Remarks
				Traffic (erl)	No. of Circuits	General		No. of Misc. Circuits		
						Traffic (erl)	No. of Circuits			
Unisan	II	Unisan	300	3.60	-	2.16	-	-	-	TS + LE
	II	Catanauan	900	10.32	18	6.19	13	4	35	
	II	Guinayangan	500	4.92	11	2.95	8	4	23	
	II	Mulanay	500	5.04	11	3.02	8	4	23	
	II	San Narciso	500	4.92	11	2.95	8	4	23	
	II	Agdangan	40	-	-	-	-	-	6	IPTS
	II	Alabat	300	2.52	8	1.51	6	4	18	
	II	Buenavista	300	3.60	9	2.16	7	4	20	
	II	General Luna	300	2.52	8	1.51	6	4	18	
	II	Macalelon	300	3.24	9	1.94	7	4	20	
	II	San Francisco	400	4.32	10	2.59	8	4	22	
	II	Perez	40	-	-	-	-	-	6	IPTS
	II	Pitogo	300	3.12	8	1.87	6	4	18	
	II	Plaridel	40	-	-	-	-	-	6	IPTS
	II	Quezon	200	2.28	7	1.37	6	3	16	
	II	San Andres	400	4.80	11	2.88	8	4	23	
		Private Co.'s			78		54	16	148	
San Jose	I	Mamburao	400	4.32	10	2.59	8	4	22	
	I	Sablayan	800	8.52	16	5.11	11	4	31	
	I	San Jose	1800	31.32	-	18.80	-	-	-	TS + LE
	II	Calintaan	300	3.12	8	1.87	6	4	18	
	II	Magsaysay (Occ. Mindoro)	400	4.44	10	2.66	8	4	22	
	II	Paluan	40	-	-	-	-	-	6	IPTS
	II	Rizal	200	2.28	8	1.37	6	3	17	
	II	Santa Cruz	200	2.16	7	1.30	5	3	15	
	II	Bulalacao	300	3.24	9	1.94	7	4	20	
	II	Aborlan	40	-	-	-	-	-	6	IPTS
	II	Agutaya	40	-	-	-	-	-	6	IPTS
	II	Araceli	40	-	-	-	-	-	6	TPTS
	II	Balabac	200	2.04	7	1.22	5	3	15	
	II	Batarasa	40	-	-	-	-	-	6	IPTS
	II	Busuanga	40	-	-	-	-	-	6	IPTS
	II	Cagayancillo	40	-	-	-	-	-	6	IPTS
	II	Coron	300	3.12	8	1.87	6	4	18	
	II	Cuyo	300	3.24	9	1.94	7	4	20	
	II	Dumaran	40	-	-	-	-	-	6	IPTS
	II	El-Nido-Bacuit	300	2.64	8	1.58	6	4	18	

Table VI-1-1 (11/12) Number of Trunk Circuits Year: 2001

PC	Phase	Name of Exchange Office	Capacity	O. G.		I. C.			Total No. of Circuits	Remarks
				Traffic (erl)	No. of Circuits	General		No. of Misc. Circuits		
						Traffic (erl)	No. of Circuits			
San Jose	II	Linapacan	40	-	-	-	-	-	6	IPTS
	II	Magsaysay (Palawan)	40	-	-	-	-	-	6	IPTS
	II	Narra Aborlan	400	3.84	10	2.30	7	4	21	
	II	Quezon	300	3.48	9	2.09	7	4	20	
	II	San Vicente	40	-	-	-	-	-	6	IPTS
	II	Taytay	300	3.60	9	2.16	7	4	20	
	II	Abra de Ilog	40	-	-	-	-	-	6	IPTS
Calapan	I	Bongabong	700	8.04	15	4.82	11	4	30	
	I	Naujan	500	6.00	13	3.60	9	4	26	
	I	Roxas	400	4.80	11	2.88	8	4	23	
	I	Victoria	400	4.80	11	2.88	8	4	23	
	I	Odiongan	400	4.56	8	2.74	8	4	20	
	I	Romblon	400	4.44	10	2.66	8	4	22	
	I	Gloria	300	3.24	9	1.94	7	4	20	
	I	Puerto Galera	40	-	-	-	-	-	6	IPTS
	I	Socorro	400	3.96	10	2.38	7	4	22	
	I	San Agustin	300	3.12	8	1.87	6	4	18	
	II	Baco	200	2.40	7	1.44	6	3	16	
	II	Bansud	400	4.68	11	2.81	8	4	23	
	II	Mansalay	300	3.36	9	2.02	7	4	20	
	II	Pola	400	3.72	9	2.23	7	4	20	
	II	San Teodoro	40	-	-	-	-	-	6	IPTS
	II	Alcantara	40	-	-	-	-	-	6	IPTS
	II	Banton	40	-	-	-	-	-	6	IPTS
	II	Cajidiocan	200	2.04	7	1.22	5	3	15	
	II	Calatrava	40	-	-	-	-	-	6	IPTS
	II	Concepcion	40	-	-	-	-	-	6	IPTS
	II	Corcuera	40	-	-	-	-	-	6	IPTS
	II	Looc	200	2.28	7	1.37	6	3	16	
	II	Magdiwang	40	-	-	-	-	-	6	IPTS
	II	San Andres	40	-	-	-	-	-	6	IPTS
	II	San Fernando	200	2.16	7	1.30	5	3	15	
	II	San Jose	40	-	-	-	-	-	6	IPTS
	II	Santa Fe	40	-	-	-	-	-	6	IPTS
	II	Lobo	400	3.84	10	2.30	7	4	21	
		Private Co.'s			66		44	8	118	

Table VI-1-1 (12/12) Number of Trunk Circuits Year: 2001

PC	Phase	Name of Exchange Office	Capacity	O. G.		I. C.			Total No. of Circuits	Remarks
				Traffic (erl)	No. of Circuuts	General		No. of Misc. Circuits		
						Traffic (erl)	No. of Circuits			
Manila	II	Burdeos	400	4.08	10	2.45	7	4	21	
	II	G. Nakar	40	-	-	-	-	-	6	IPTS
	II	Jumalig	40	-	-	-	-	-	6	IPTS
	II	Panukulan	300	3.12	8	1.87	6	4	18	
	II	Patnanangan	40	-	-	-	-	-	6	IPTS
	II	Polillo	400	4.80	11	2.88	8	4	23	
	II	Real	600	6.12	13	3.67	9	4	26	
	II	Kalayaan	40	-	-	-	-	-	6	IPTS
	II	Mabitac	200	2.28	7	1.37	6	3	16	
	II	Pakil	300	3.00	8	1.80	6	4	18	
	II	Pangil	40	-	-	-	-	-	6	IPTS
	II	Pila	500	5.52	12	3.31	9	4	25	
	II	Rizal	40	-	-	-	-	-	6	IPTS
	II	Siniloan	300	3.12	8	1.87	6	4	18	
	II	Victoria	400	4.80	11	2.88	8	4	23	
	II	Magallanes	40	-	-	-	-	-	6	IPTS
	II	Ternate	40	-	-	-	-	-	6	IPTS

Table VI-1-2 (1/2) Number of Circuits between TSs

Outgoing	Incoming	Types of Circuit	1991		1994		2001	
			Traffic (erl)	No. of Circuits	Traffic (erl)	No. of Circuits	Traffic (erl)	No. of Circuits
S. F. U.	Cabanatuan		0.79	4	0.96	5	2.16	7
Cabanatuan	S. F. U.		1.64	6	2.49	7	5.85	12
	Tarlac	H	2.44	-	3.57	-	8.11	8
	Olongapo	H	4.53	-	6.07	-	13.83	14
	Malolos	H	5.22	-	7.14	-	16.22	17
	Manila	F	61.02	63	85.23	87	194.34	218
	San Fernando	F	25.60	39	35.27	51	35.48	51
Tarlac	Cabanatuan	H	2.44	-	3.57	-	8.11	8
Olongapo	Cabanatuan	H	4.53	-	6.07	-	13.83	14
San Fernando	Cabanatuan	F	23.61	37	31.86	47	33.16	48
	Pandi	F	4.33	11	5.55	13	8.50	17
	Dinalupihan	F	8.04	17	10.27	20	18.36	30
	Batangas	H	2.07	-	2.38	-	15.76	16
Malolos	Cabanatuan	H	5.22	-	7.14	-	16.22	17
Pandi	Manila	H	8.79	9	11.72	12	19.80	20
	San Fernando	F	4.79	12	6.10	14	9.64	19
Dinalupihan	Manila	H	16.78	17	22.66	23	42.64	44
	San Fernando	F	8.35	17	10.80	20	18.30	30
Dasmarinas	Batangas	H	6.72	7	7.26	7	15.12	15
San Pablo	Batangas	H	11.42	11	12.29	12	25.64	26
	Unisan	H	-	-	1.25	-	5.71	7
	Calapan	H	2.70	-	3.34	-	6.44	6
Batangas	Dasmarinas	H	6.72	7	7.26	7	15.12	15
	San Pablo	H	11.42	11	12.29	12	25.64	26
	Lucena	H	7.39	7	8.94	9	17.09	17
	Unisan	H	-	-	1.79	-	7.89	8
	San Jose	H	0.67	-	2.79	-	5.92	6
	Calapan	H	2.02	-	3.35	-	6.57	6
	San Fernando	H	4.25	-	5.82	-	15.95	16
	Manila	F	93.41	118	127.65	157	238.1	285

Table VI-1-2 (2/2) Number of Circuits between TSs

Outgoing	Incoming	Types of Circuit	1991		1994		2001	
			Traffic (erl)	No. of Circuits	Traffic (erl)	No. of Circuits	Traffic (erl)	No. of Circuits
Lucena	Batangas	H	7.39	7	8.94	9	17.09	17
Unisan	San Pablo	H	-	-	1.25	-	5.71	7
	Batangas	H	-	-	0.91	-	4.68	4
	Manila	F	-	-	17.63	27	74.26	96
San Jose	Batangas	H	0.80	-	1.50	-	3.91	3
	Manila	F	15.20	24	29.07	41	67.16	88
Calapan	San Pablo	H	2.70	-	3.34	-	6.64	6
	Batangas	H	1.75	-	2.43	-	5.44	5
	Manila	F	31.80	44	46.60	60	87.58	112
Manila	Cabanatuan	H	30.00	31	33.71	35	74.07	83
	Pandi	H	2.89	2	3.60	3	6.05	6
	Dinalupihan	H	4.59	4	6.46	6	11.61	12
	Batangas	F	41.61	58	58.77	78	95.06	120
	Unisan	F	-	-	8.61	16	29.62	44
	San Jose	F	8.76	16	15.92	25	32.61	48
	Calapan	F	17.05	27	24.71	36	41.20	58

2. Telegraph Circuit Estimation

2-1 Number of Gentex Lines

Telegraph circuit estimation has been made on the same conditions as employed in the Northern Luzon Project, as follows.

(1) Waiting time (sending): 600 seconds

(2) Average holding time (sending): 120 seconds

(3) Formula for sending line estimation: (W/h = 4)

As per Erlangs C formula.

W: Average waiting time

h: Average holding time

(4) Formula for receiving line estimation: (B = 0.01)

As per Erlangs B formula.

B: Loss probability

The numbers of gentex lines obtained as above are given in Tables VI-2-1-1 and VI-2-1-2.

2-2 Number of Telex Subscriber Lines

The number of telex subscriber lines corresponds to the number of telex units (lines) obtained in the paragraph on demand estimation. Table VI-2-1-1 gives the number of telex lines, and Table VI-2-2-1 shows the total numbers of gentex and telex lines.

2-3 Trunk Lines between Telex Concentrator Station and Telex Exchange Office

TDM concentrators are to be used for telex concentrators. In this case, each one outgoing

Table VI-2-1-1 (1/3) Required Number of Gentex and Telex Lines

Gentex Station or Telex Station (T)	Station	Section	Required Number of Lines	
			Phase I	Phase II
	Olongapo	To Olongapo	4	4
	Olongapo (T)	To Longapo	-	37
	Tarlac	To Tarlac	3	3
	Tarlac (T)	To Tarlac	3	11
	Baliuag	To Malolos	1	1
	Baliuag (T)	To Malolos	2	7
	Hagonoy	To Malolos	1	1
	Hagonoy (T)	To Malolos	4	10
	Malolos	To Malolos	2	2
	Malolos (T)	To Malolos	5	10
	Meycauyan	To Malolos	-	1
	Meycauyan (T)	To Malolos	-	17
	Sta. Maria	To Malolos	-	1
	Sta. Maria (T)	To Malolos	-	14
	Guagua	To S. Fernando	1	1
	Guagua (T)	To S. Fernando	3	8
	Angeles	To S. Fernando	2	2
	Angeles (T)	To S. Fernando	-	40
	San Fernando	To S. Fernando	3	3
	San Fernando(T)	To S. Fernando	16	35
	Cabanatuan	To Cabanatuan	3	3
	Cabanatuan (T)	To Cabanatuan	3	7
	Iba	To Iba	2	2
	Masinloc	To Iba	-	2
	Limay	To Iba	-	1
	Limay (T)	To Iba	-	7
	Balanga	To Iba	2	2
	Balanga (T)	To Iba	-	3
	Mariveles	To Iba	1	2

Table VI-2-1-1 (2/3) Required Number of Gentex and Telex Lines

	Station	Section	Required Number of Lines	
			Phase I	Phase II
Gentex Station or Telex Station (T)	Batangas	To Batangas	5	5
	Batangas (T)	To Batangas	5	11
	Bauan	To Batangas	1	1
	Bauan (T)	To Batangas	2	6
	Lipa	To Batangas	2	2
	Lipa (T)	To Batangas	1	5
	Nasugbu	To Batangas	1	1
	Nasugbu (T)	To Batangas	3	5
	Balayan	To Batangas	-	1
	Balayan (T)	To Batangas	-	2
	Tanauan	To Batangas	-	1
	Tanauan (T)	To Batangas	-	2
	Binan	To Calamba	-	1
	Binan (T)	To Calamba	-	8
	Calamba	To Calamba	-	5
	Calamba (T)	To Calamba	-	13
	San Pablo	To Calamba	-	3
	San Pablo (T)	To Calamba	-	13
	College	To Calamba	-	2
	Calapan	To Calapan	3	3
	Cavite	To Cavite	-	2
	Cavite (T)	To Cavite	-	8
	Imus	To Cavite	-	1
	Imus (T)	To Cavite	-	3
	Tagaytay	To Cavite	-	4
	Odiongan	To Romblon	2	2
	Romblon	To Romblon	3	3

Table VI-2-1-1 (3/3) Required Number of Gentex and Telex Lines

	Station	Section	Required Number of Lines	
			Phase I	Phase II
Gentex Station or Telex Station (T)	San Fernando	To Romblon	-	2
	Puerto Princesa	To P. Princesa	-	3
	Puerto Princesa(T)	To P. Princesa	-	3
	Candelaria	To Lucena	-	1
	Candelaria (T)	To Lucena	-	4
	Gumaca	To Lucena	-	3
	Lucena	To Lucena	-	5
	Lucena (T)	To Lucena	-	9
	Boac	To Lucena	3	3
	San Jose	To S. Jose	2	2
	San Jose (T)	To S. Jose	1	3
	Antipolo	To Taytay	-	1
	Antipolo (T)	To Taytay	-	13
	Cainta	To Taytay	-	1
	Cainta (T)	To Taytay	-	37
	Tanay	To Taytay	-	1
	Tanay (T)	To Taytay	-	5
	Taytay	To Taytay	-	2
	Taytay (T)	To Taytay	-	18
Total			95	466

(Note) A kind of circuit is a two wire type.

Table VI-2-1-2 Required Number of Gentex Lines

	Phase I	Phase II	Remarks
Gentex Station	Cabiao, CLSU (Munos), Guimba, Jaen, Quezon, San Antonio, San Jose, Sta. Rosa, F. Blanca, Dinalupihan, Gerona, Calaca, S. Ildefonso, Bongabon, Victoria, Mamburao, Sablayan Total: 17 lines	Orion, Gapan, Lupao, Munos, Palayan, Rizal, Talavera, S. Leonardo, Sto. Domingo, Baler, Apalie, Lubao, Camiling, Concepsion, Paniqui, Moncada, Victoria, Balagtas, Bocaue, Calumpit, Marilao, Plaridel, Pulilam, S. Miguel, S. Antonio, Subic, Sta. Cruz, F. Air Base, Lemery, Rosario, San Jose, San Juan, Cabuao, Kalayaan, Liliw, Los Banos, Lopez, Mabitac, Majayjay, Sanpedro, Sta. Cruz, Infanta, Tanza, Alcantara, Banton, Looc, Coron, Unisan, Culion, El Nido, Calauag, Catanauan, G. Luna, Guinayangan, Macalelon, Mauban, Mulanay, Pitogo, Gasan, Palauan, Sta. Cruz Total: 78 lines	Each gentex stations provides a pair of telephone lines to telex concentrator station

Table VI-2-2-1 Total Numbers of Gentex and Telex Lines

	Phase I	Phase II	Remarks
Number of gentex lines	64	170	2-wire type
Number of telex lines	48	374	2-wire type
Total	112	544	2-wire type

telephone trunk line (4 wires) can accommodate 46 telegraph channels of 50 bauds. The numbers of trunk lines between telex concentrator and telex exchange are given in Table VI-2-3-1.

2-4 Number of Trunk Lines between Telex Exchange Offices

The estimation of the required number of trunk lines has been made on the same conditions as employed in the Northern Luzon Porject.

(1) The outgoing/incoming traffic in the regional telex exchange area is estimated to be 15% of all traffic to be handled by the exchange equipment.

(2) The number of outgoing calls from regional telex center to National Telex Center in Manila is to be 30% larger than the number of incoming calls from Manila.

(3) Total number of calls (a)

$$a = (T \times 0.08 + G \times 0.2) \times 1.2 + L \quad \text{(erlangs)}$$

The total number of outgoing calls to Manila $= a \times 0.85 \times 1.15/2$ (Erlang)

The total number of Incoming calls from Manila $= a \times 0.85 \times 0.85/2$ (Erlang)

where T: number of telex lines

G: number of gentex lines

L: total number of calls in the regional telex center

0.08: busy-hour traffic of a telex subscriber line (erlangs/line)

Table VI-2-3-1 Required Number of Trunk Lines

	Station	Section	Required Number of Lines	
			Phase I	Phase II
Telex Exchange	San Fernando	To Manila	1	2
	Batangas	To Manila	1	2
Telex Concentrator Station	Balanga	To S. Fernando	1	1
	Cabanatuan	To S. Fernando	1	1
	Tarlac	To S. Fernando	1	1
	Malolos	To S. Fernando	1	2
	Olongapo	To S. Fernando	1	1
	Iba	To S. Fernando	1	1
	Taytay	To Batangas	-	2
	Calamba	To Batangas	-	2
	Calapan	To Batangas	1	1
	Cavite	To Batangas	-	1
	Romblon	To Batangas	1	1
	P. Princesa	To Batangas	-	1
	Lucena	To Batangas	-	1
	San Jose	To Batangas	1	1
Total			11	21

(Note) A Kind of circuit is a 4-wire type.

0.2: busy-hour traffic of a gentex line (erlangs/line)

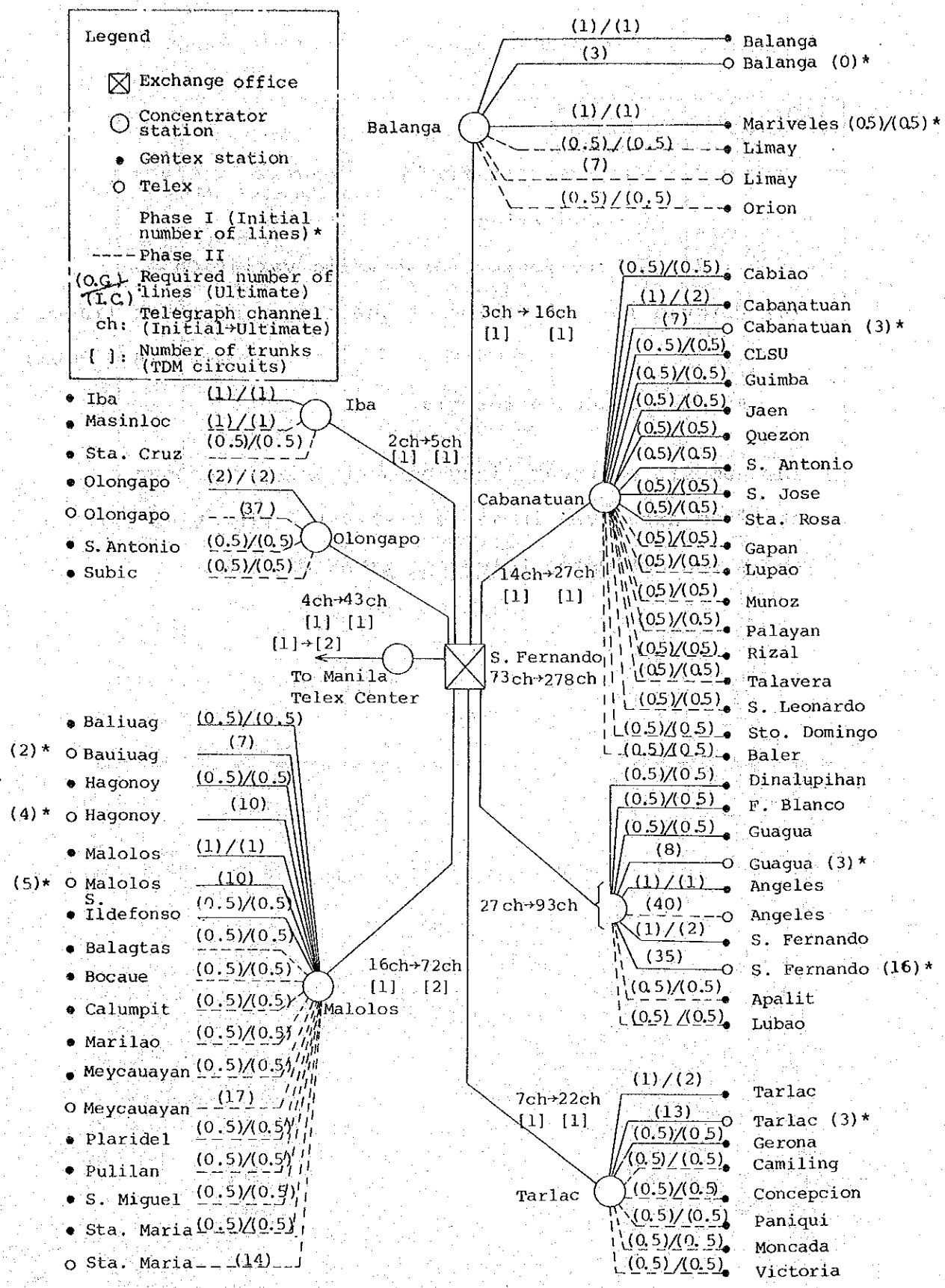
1.2: Safety factor for traffic variation

(4) Formula for estimation of the number of trunk lines:

(B = 0.01)

As per Erlangs B formula.

The numbers of trunk lines between telex exchange stations are given in Table VI-2-3-1. Fig. VI-2-4-1 shows the estimated telegraph trunk diagram.



Note 1: Figures in ( )* are the numbers of lines in Phase I.

Note 2: (0.5)/(0.5) means one line for both outgoing and incoming telegrams.

Fig. VI-2-4-1 (1/2) Telegraph Trunk Diagram (Region III)

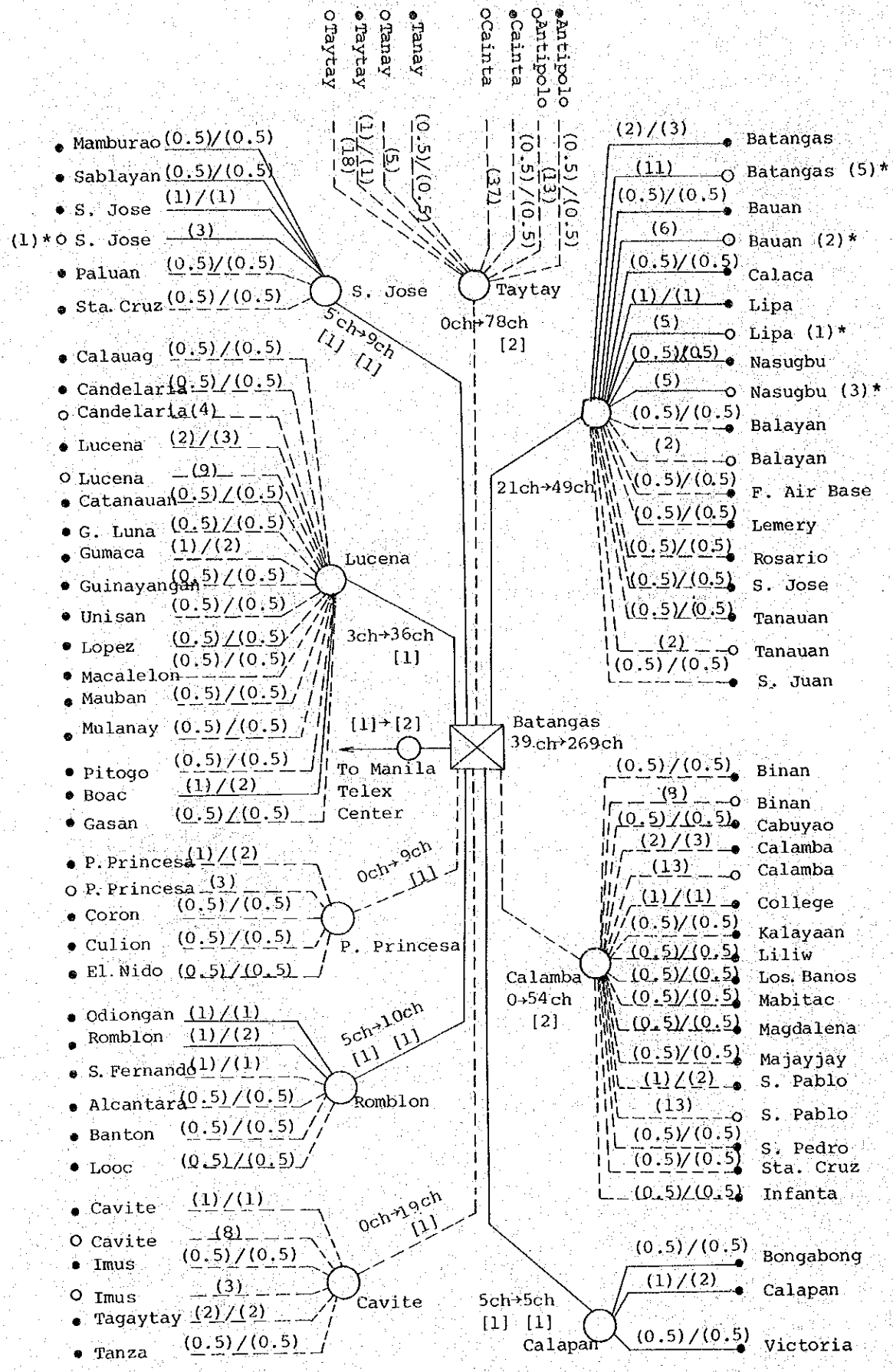
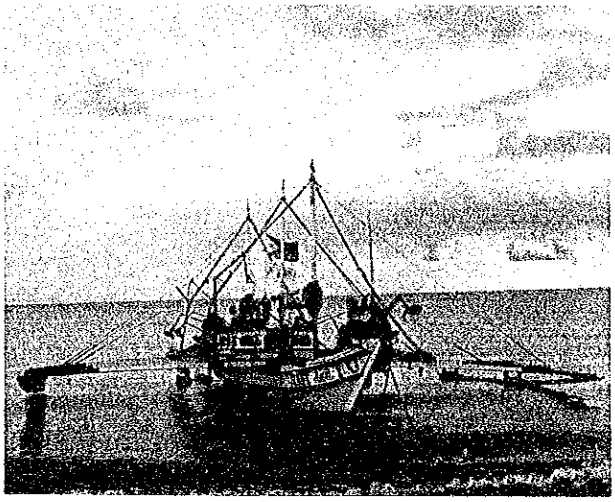


Table VI-2-4-1 (2/2) Telegraph Trunk Diagram (Region IV)

VII. SYSTEM DESIGN AND AMOUNTS OF WORKS

3-1



Rental Ferry boat for site survey at Sablayan, San Jose

3-2

Flooded road by typhoon (National road, Cabanatuan-Santa Rosa)

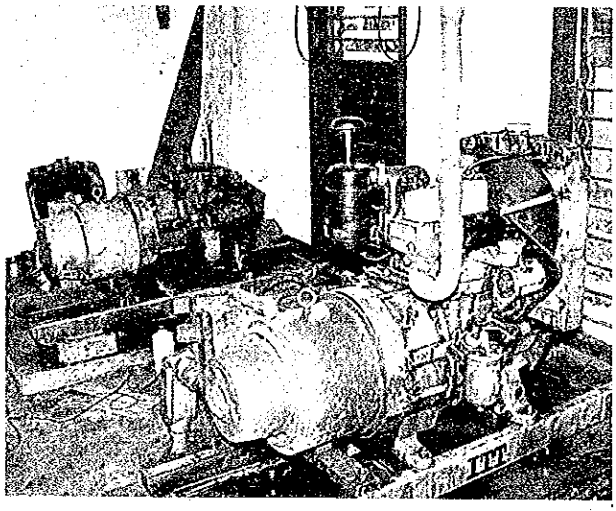
3-3

Drinking coconat juice on the way of site survey (Mt. Dumali)

4-1

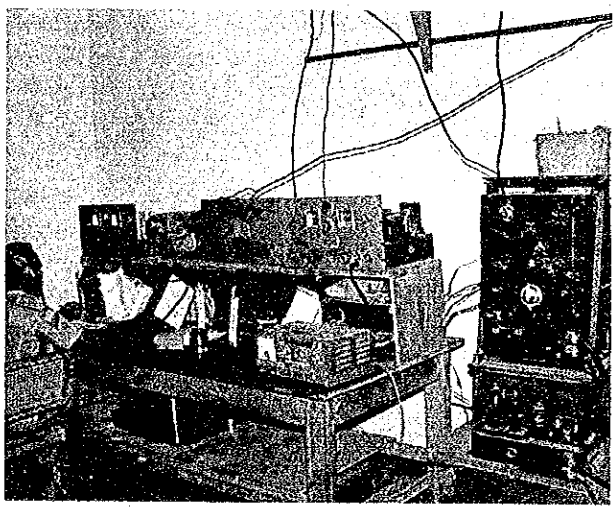
Inter provincial Telephone station of BUTEL (Cabanatuan)

4-2



Power plant for Microwave relay station (Mamburao)

4-3



Telegraph station (Mamburao)

VII. SYSTEM DESIGN AND AMOUNTS OF WORKS

1. Switching Equipment

1-1 General

The major items of work regarding switching equipment are as follows.

(1) Installation of LEs for accommodating subscribers

(2) Installation of IPTSs for providing semi-automatic toll telephone service (for accommodating some subscribers)

(3) Installation of TSs for establishing a DDD network

1-2 Amounts of Works

The amounts of works for different types of switching equipment are given in Table VII-1-2-1. In Phase I, a basic telephone network is to be constructed by installing mainly toll switching equipment and local switching equipment. In Phase II, IPTSs are to be installed mainly in cities/municipalities, where no telephone service is to be provided for the time being, so as to spread telephone service. Details of the amounts of works are as follows.

(1) Capacity of LEs and IPTSs to be installed

Table VI-1-1 in SECTION VI "CIRCUIT ESTIMATION" gives the capacity of LEs and IPTSs to be installed.

(2) Capacity of toll switching equipment to be installed

Table VII-1-2-2 gives the capacity of toll switching equipment to be installed.

1-3 Trunking Diagrams

The capacity, traffic, and the number of circuits of each exchange office are given in Tables VI-1-1 and VI-1-2. The typical trunking diagrams of TS, TS + LE, LE, and IPTS are shown in Figs. VII-1-3-1 ~ 4.

Table VII-1-2-1 Amounts of Works for Different Types and Capacities of Switching Equipment

Type/Capacity		Phase I	Phase II
TS		3	-
TS + LE	200L + 20 erl	1	-
	200L + 30 erl	-	1
	400L + 40 erl	1	-
	800L + 20 erl	1	-
	Subtotal	3	1
LE	200L	12	-
	300L	14	3
	400L	2	-
	500L	-	1
	Subtotal	28	4
IPTS		10	103

Table VII-1-2-2 Capacity of Toll Switc-ign Equipment to Be Installed

Office	1991			1994		
	Number of IC/OG Circuits	Number of Boards	Number of Subscribers	Number of IC/OG Circuits	Number of Boards	Number of Subscribers
Cabanatuan	404	3	-	556	5	-
Pandi	75	1	160	87	1	210
Dinalupihan	124	1	360	153	2	470
Batangas	424	3	-	574	5	-
Unisan	-	-	-	145	2	200
San Jose	35	1	750	185	2	990
Calapan	197	2	-	331	3	-
Total	1,259	12		2,031	21	

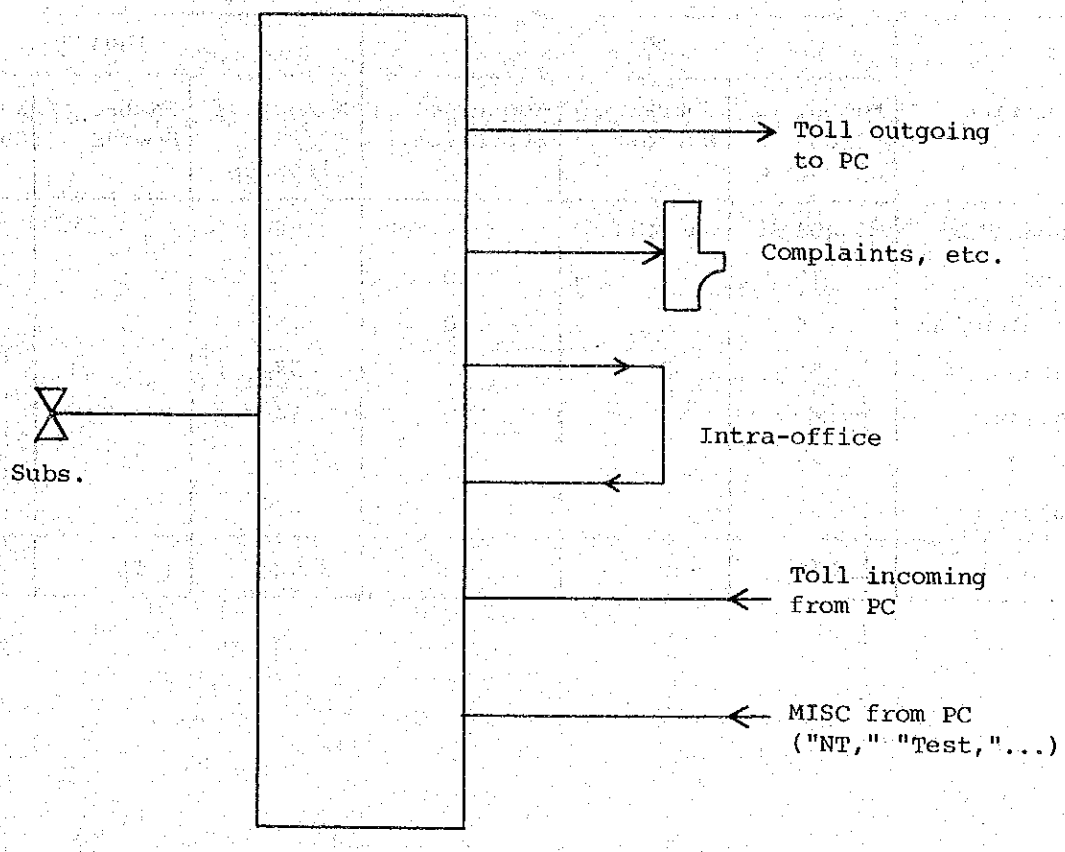


Fig. VII-1-3-1 LE Trunking Diagram

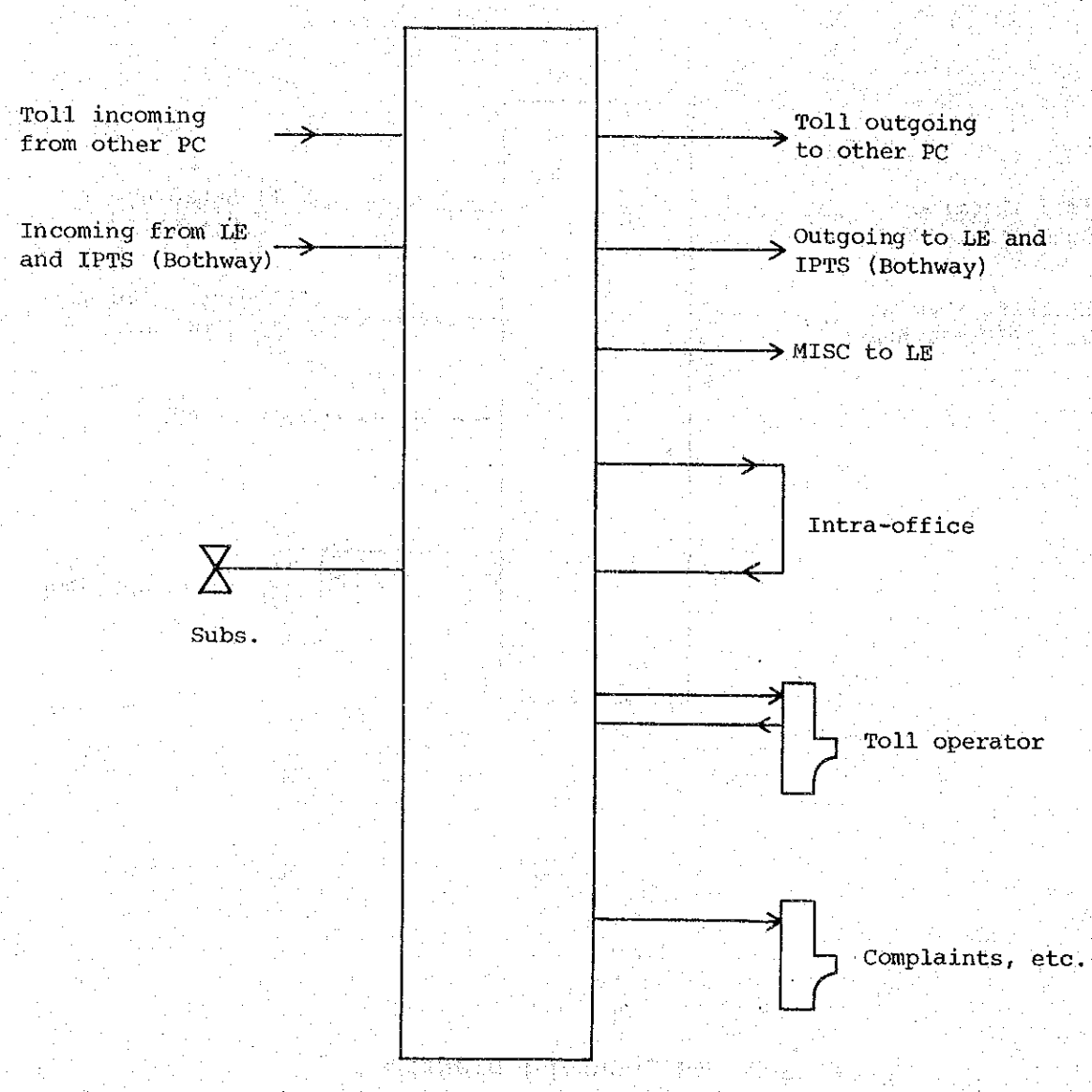


Fig. VII-1-3-2 LE + PS Trunking Diagram

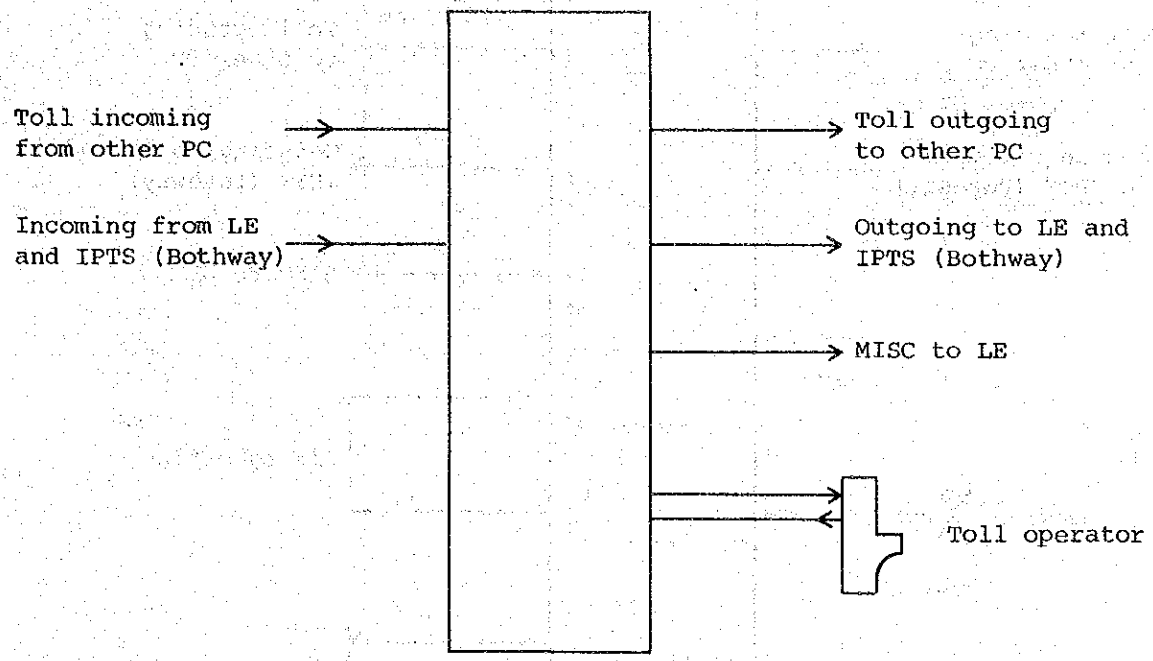


Fig. VII-1-3-3 TS Trunking Diagram

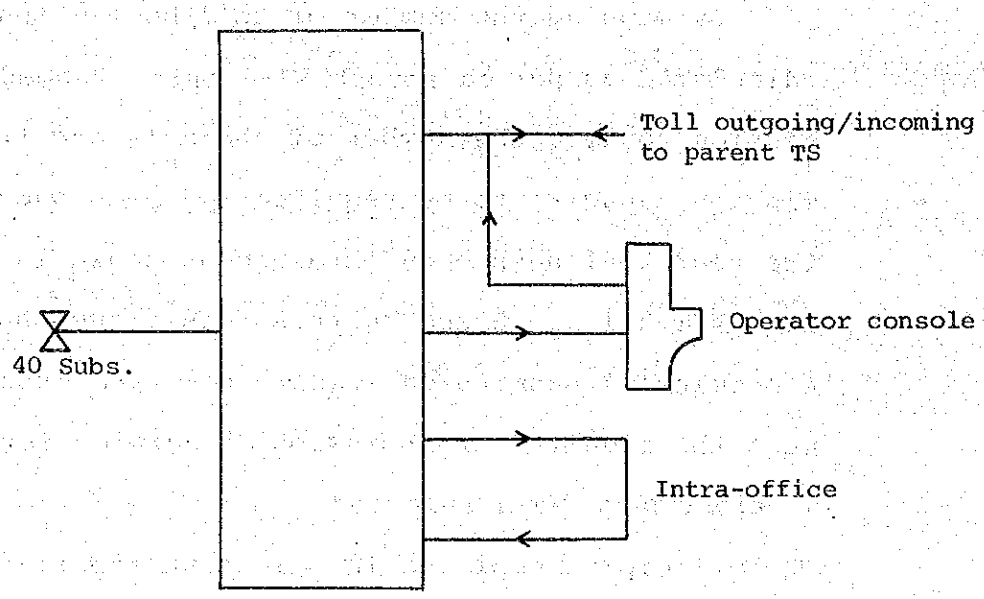


Fig. VII-1-3-4 IPTS Trunk Diagram

2. Transmission

2-1 Section of Transmission Systems

By mapping the number of telephone channels calculated as per paragraph VI-1 onto assumed transmission routes, the number of channels and transmission capacity to be required for each section in the year 2001 have been obtained as shown in Fig. VII-2-1-1. Based on this result such an economical transmission systems that are expected to meet the required transmission capacities for individual sections have been selected.

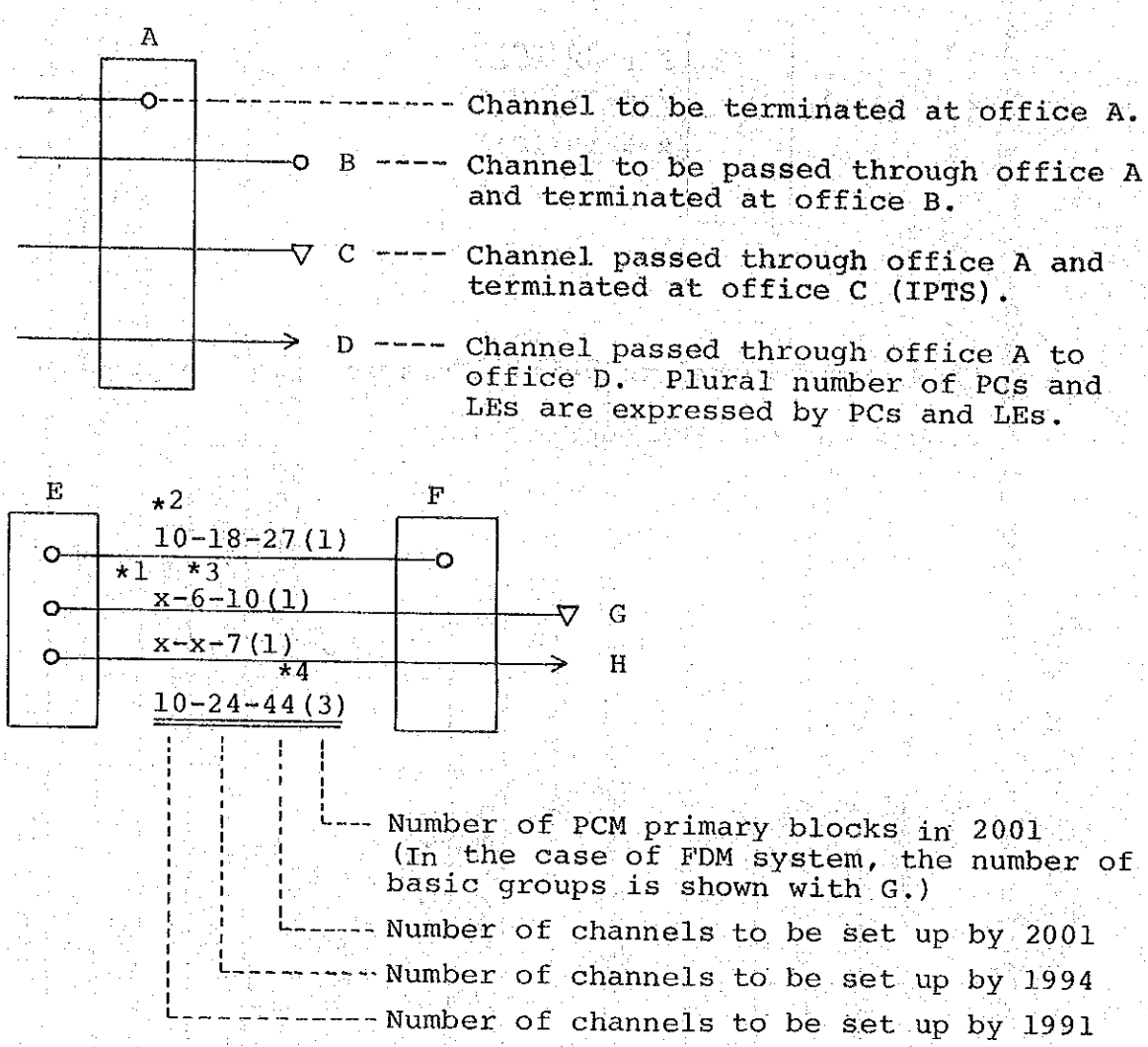
The principles employed in selecting transmission systems are as follows.

(1) SHF system is employed in sections where the number of channels to be required by 2001 will exceed 500 or where color TV signal is to be transmitted.

(2) For sections where the number of channels to be required by 2001 will be less than 500, UHF or VHF system is to be employed. However, cable system (trunk cable system or cable PCM system) is to be employed for sections with transmission distances of less than about 10 km.

(3) Cable systems for entrance from radio stations to telephone exchange offices have been determined on the following principles.

Legend for Fig. VII-2-1-1

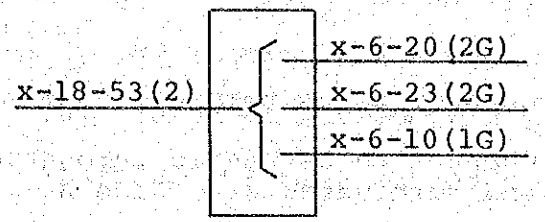


Note *1 "x" means that no channel is to be set up.

*2 For transmission between E and F, ten channels to be required by 1991 are to be set up in Phase I.

*3 For transmission between E and G, six channels to be required by 1994 are to be set up in Phase II.

*4 For transmission between E and F, such a transmission system that will meet the transmission capacity to be required by 2001 (the number of PCM primary blocks or FDM basic groups) is to be selected in principle.



This means mutual conversion between two PCM primary blocks and one FDM supergroup.

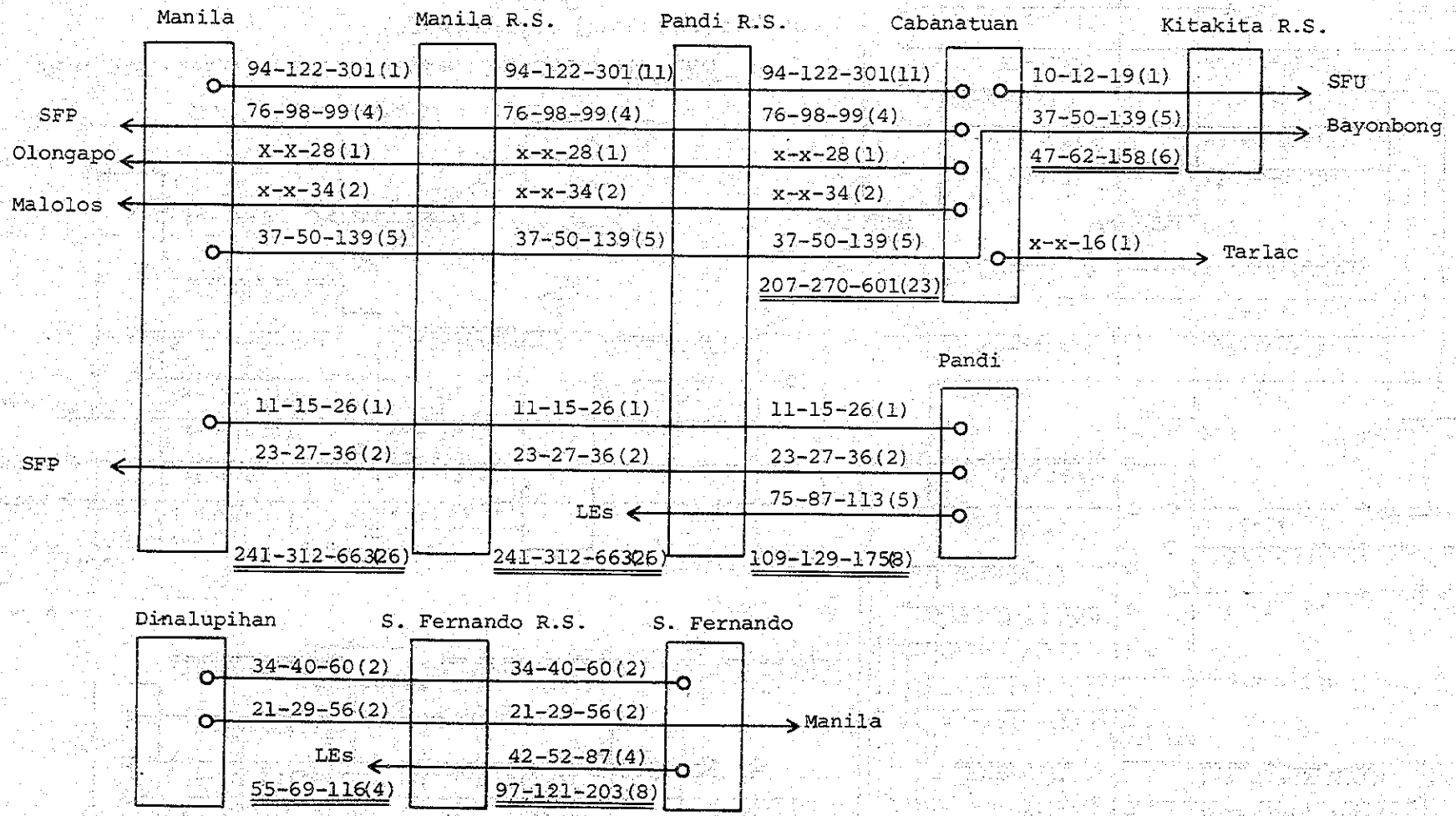


Fig. VII-2-1-1 (1/10) Number of Channels and Transmission Capacity between TSs (North of Manila)

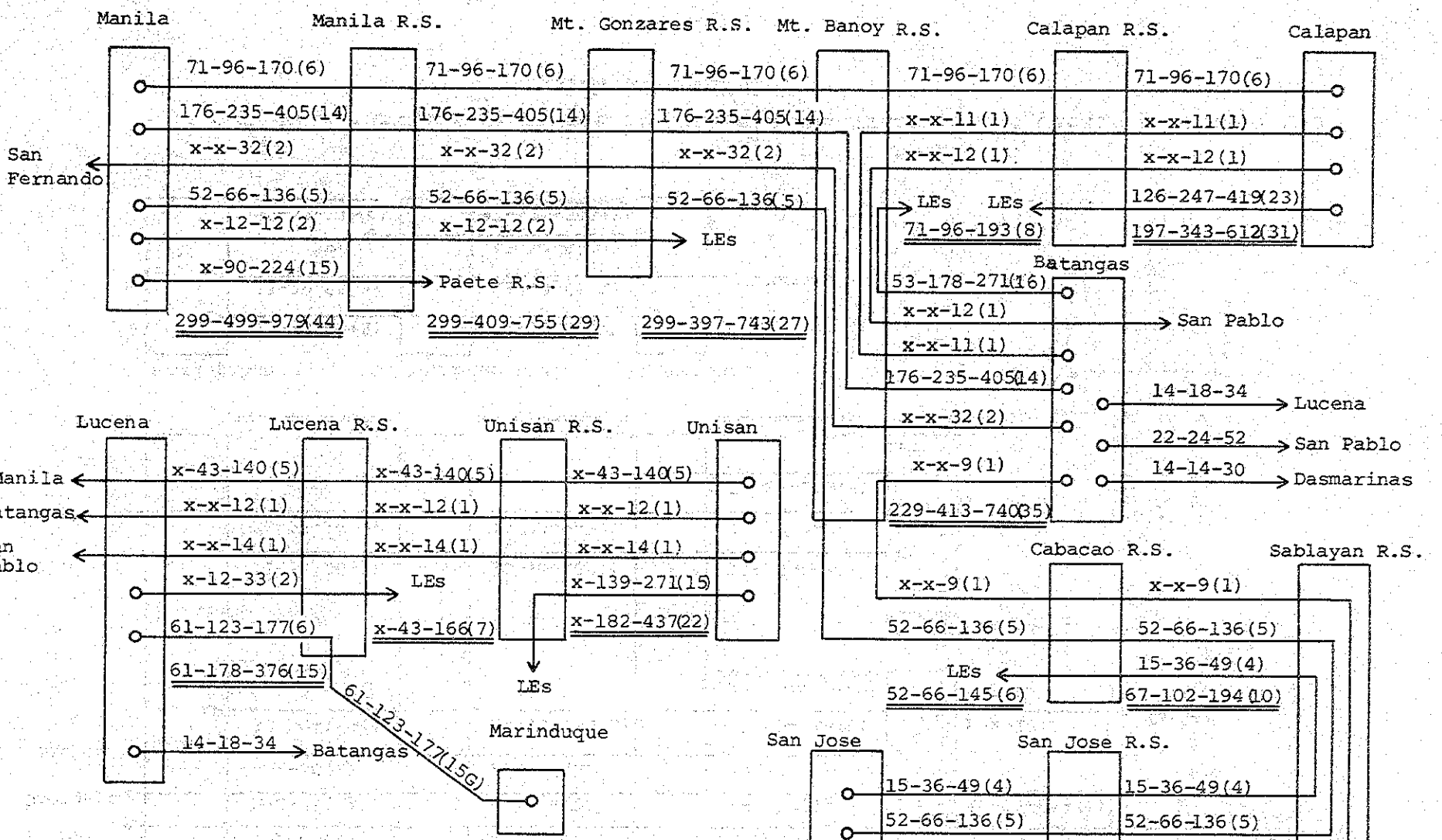


Fig. VII-2-1-1 (2/10) Number of Channels and Transmission Capacity between TSs (South of Manila)

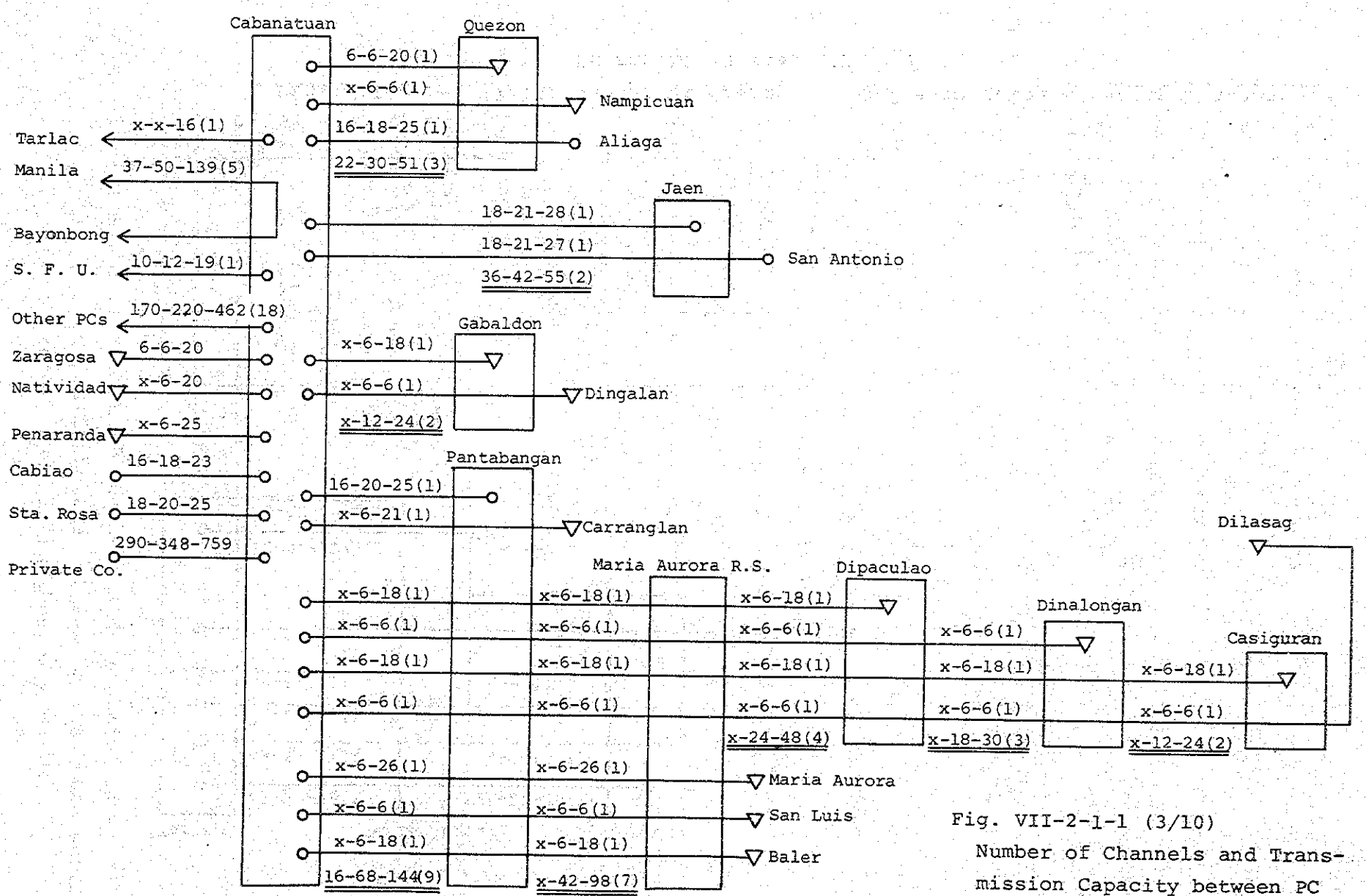


Fig. VII-2-1-1 (3/10)
Number of Channels and Transmission Capacity between PC and LE (Cabanatuan PC Area)

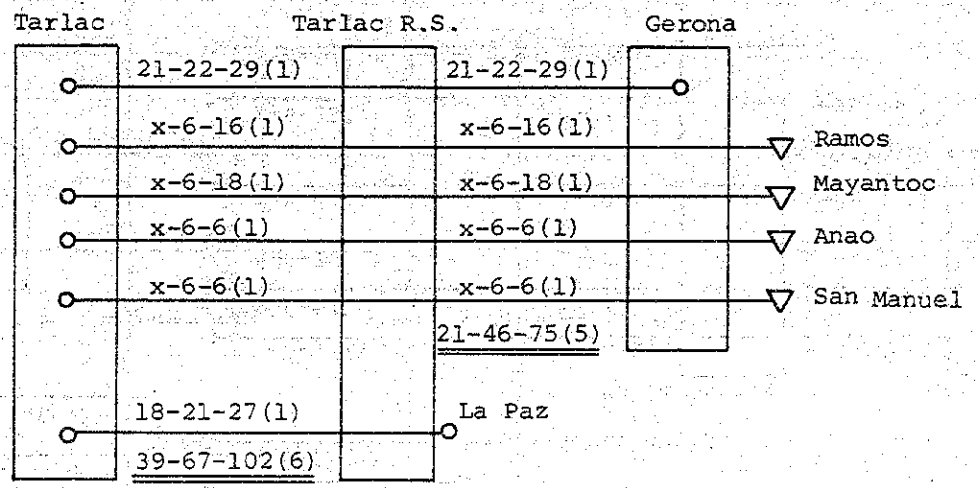


Fig. VII-2-1-1 (4/10) Number of Channels and Transmission Capacity between PC and LE (Tarlac PC Area)

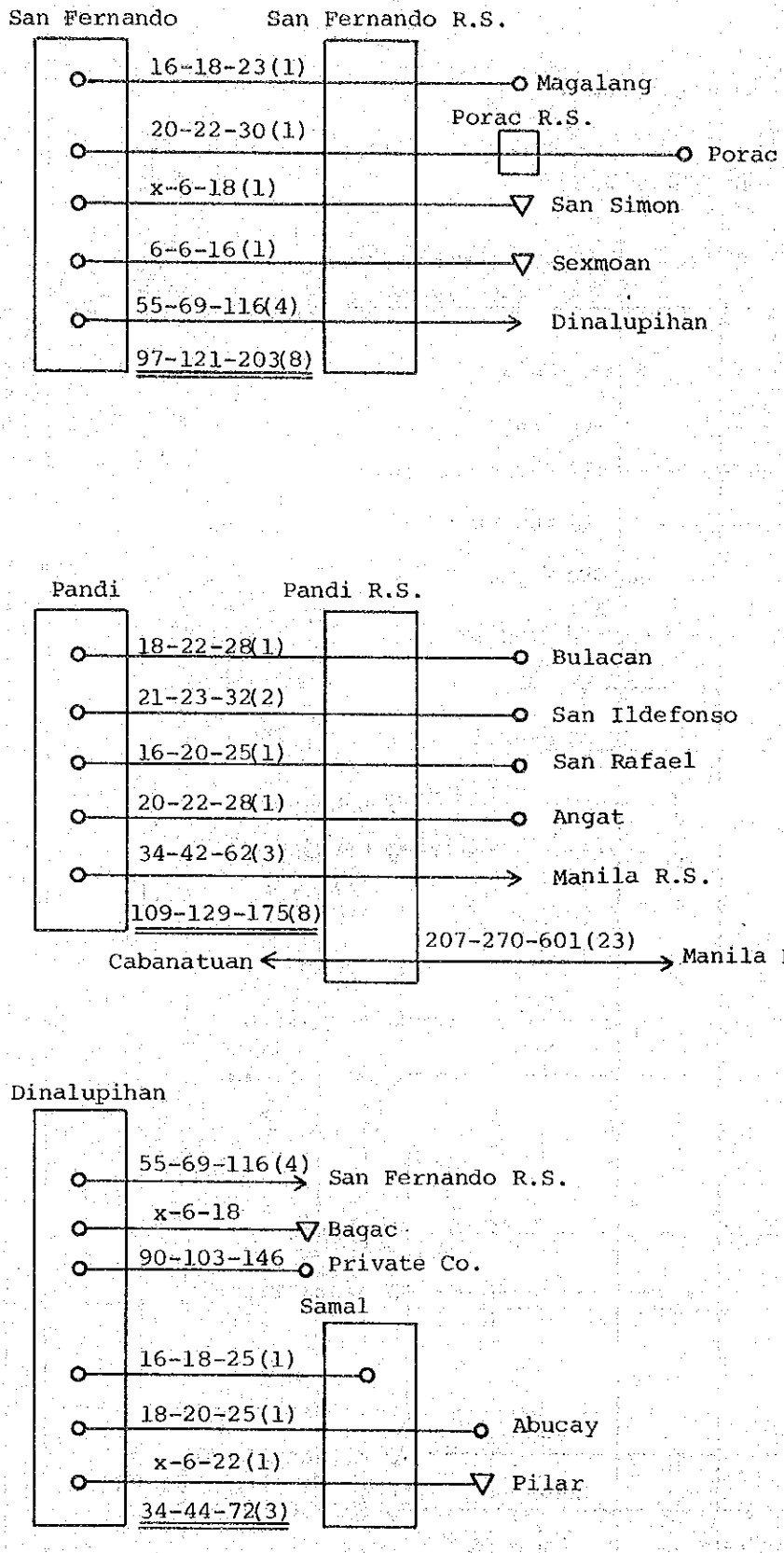


Fig. VII-2-1-1 (5/10) Number of Channels and Transmission Capacity between PC and LE (San Fernando, Pandi, and Dinalupihan PC Areas)

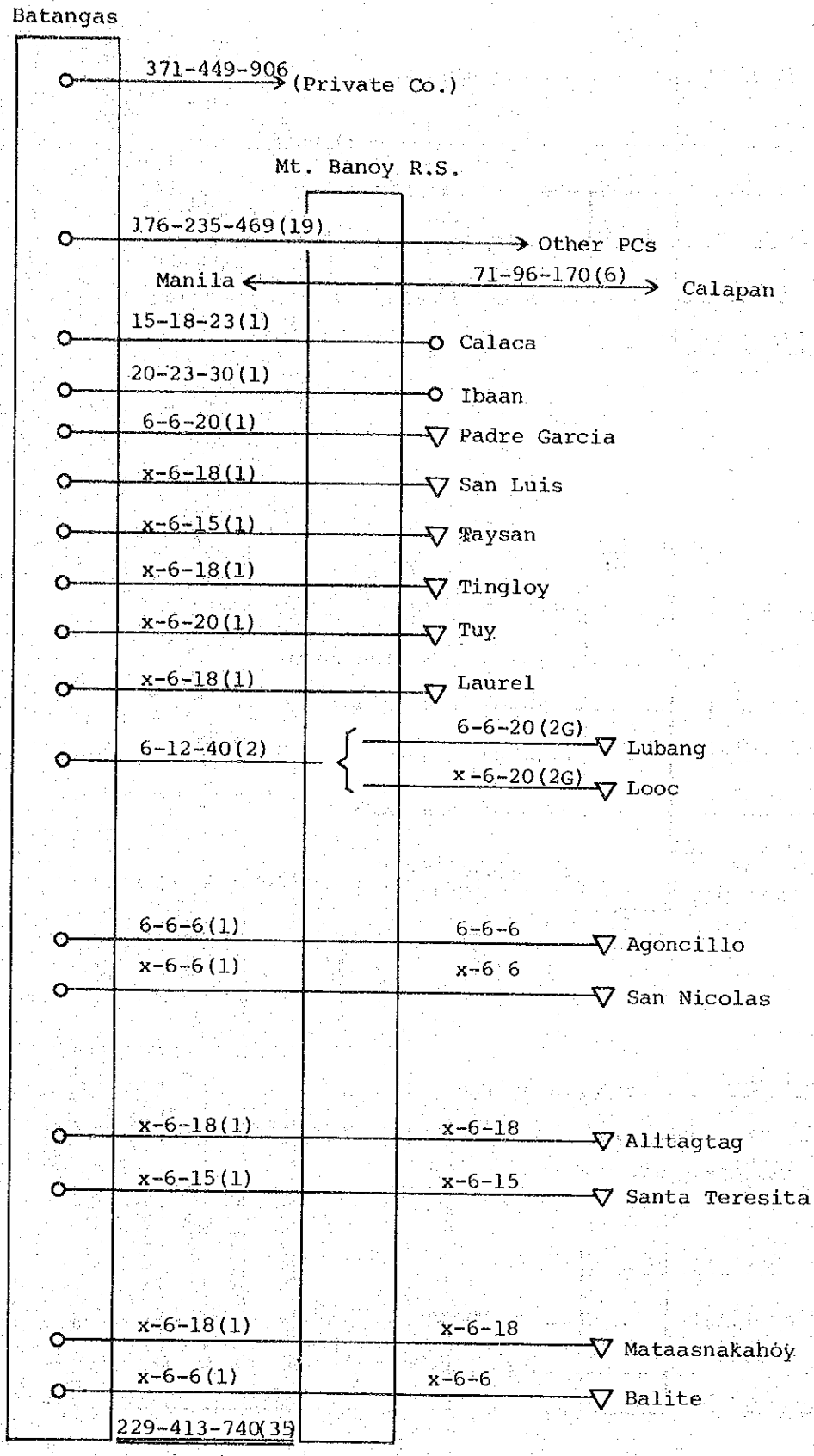


Fig. VII-2-1-1 (6/10) Number of Channels and Transmission Capacity between PC and LE (Batangas PC Area)

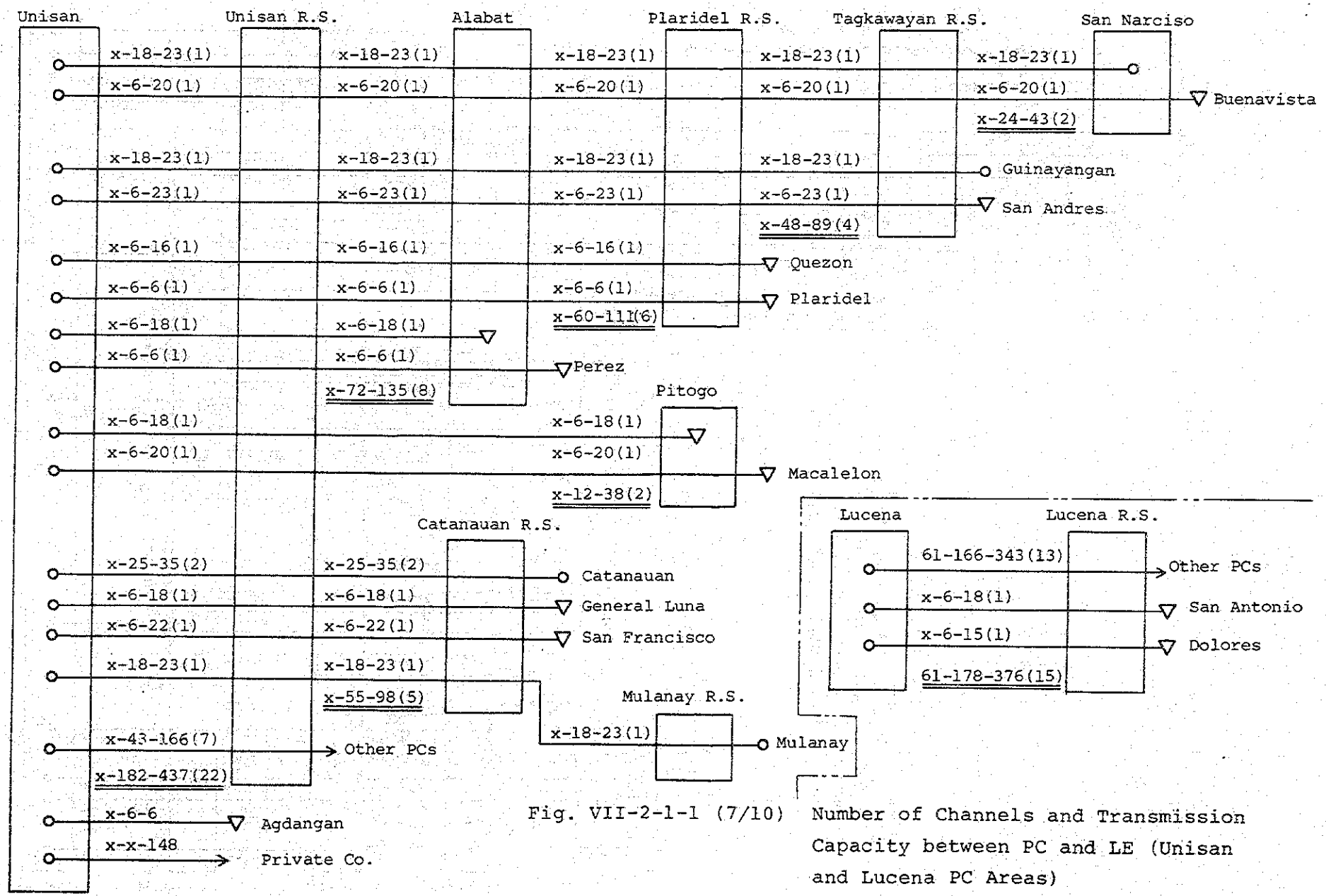


Fig. VII-2-1-1 (7/10) Number of Channels and Transmission Capacity between PC and LE (Unisan and Lucena PC Areas)

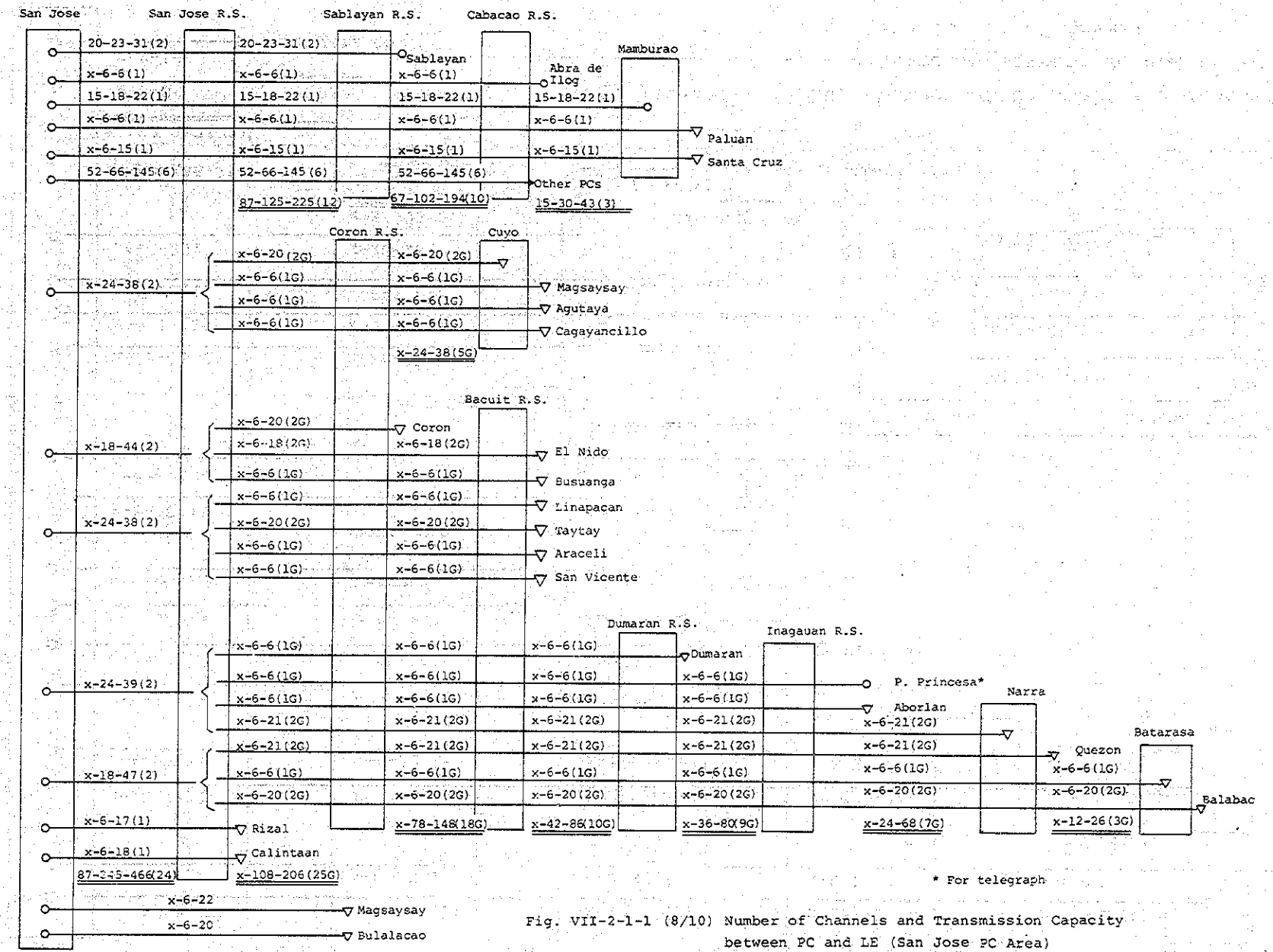


Fig. VII-2-1-1 (8/10) Number of Channels and Transmission Capacity between PC and LE (San Jose PC Area)

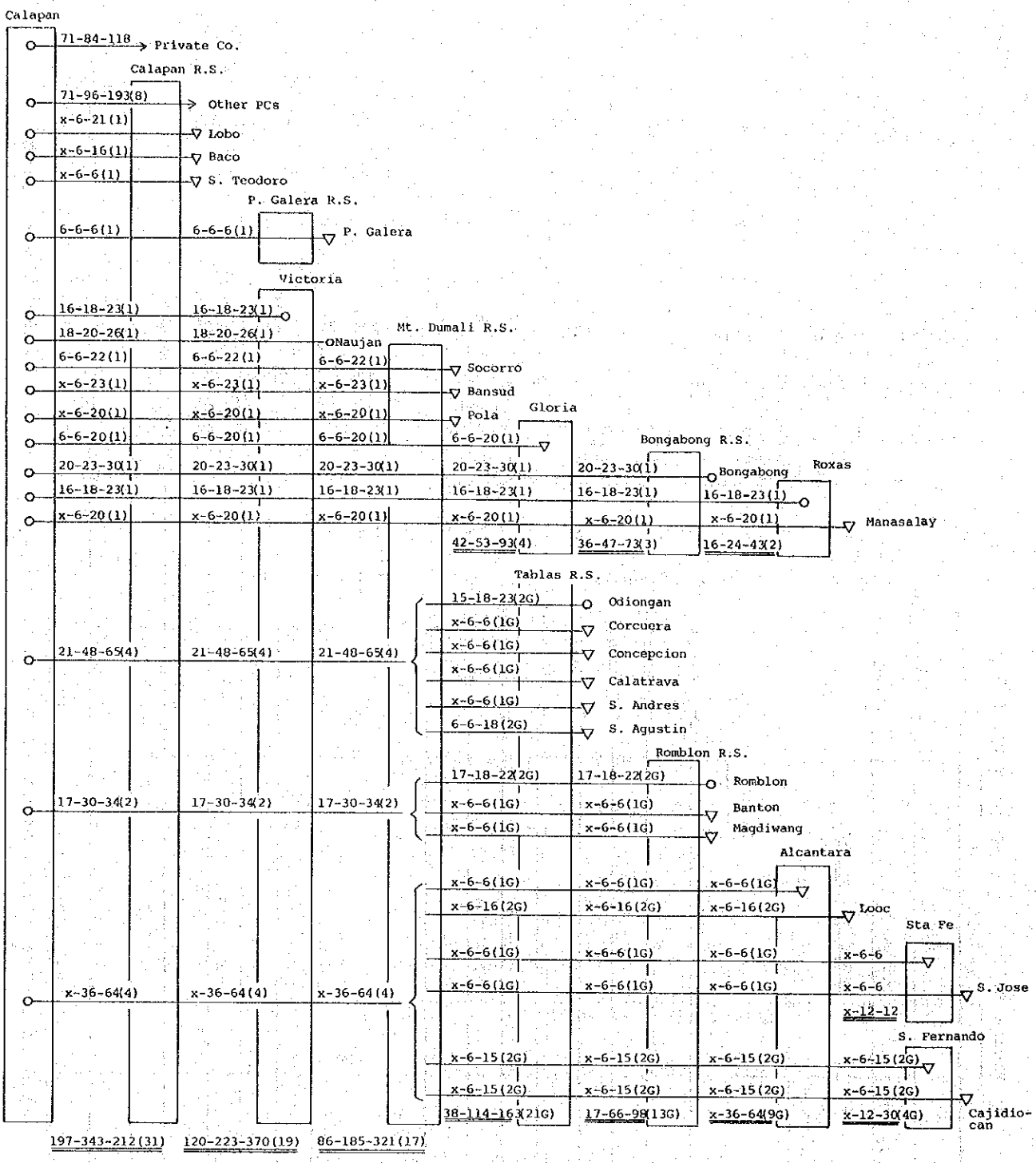


Fig. VII-2-1-1 (9/10) Number of Channels and Transmission Capacity between PC and LE (Calapan PC Area)

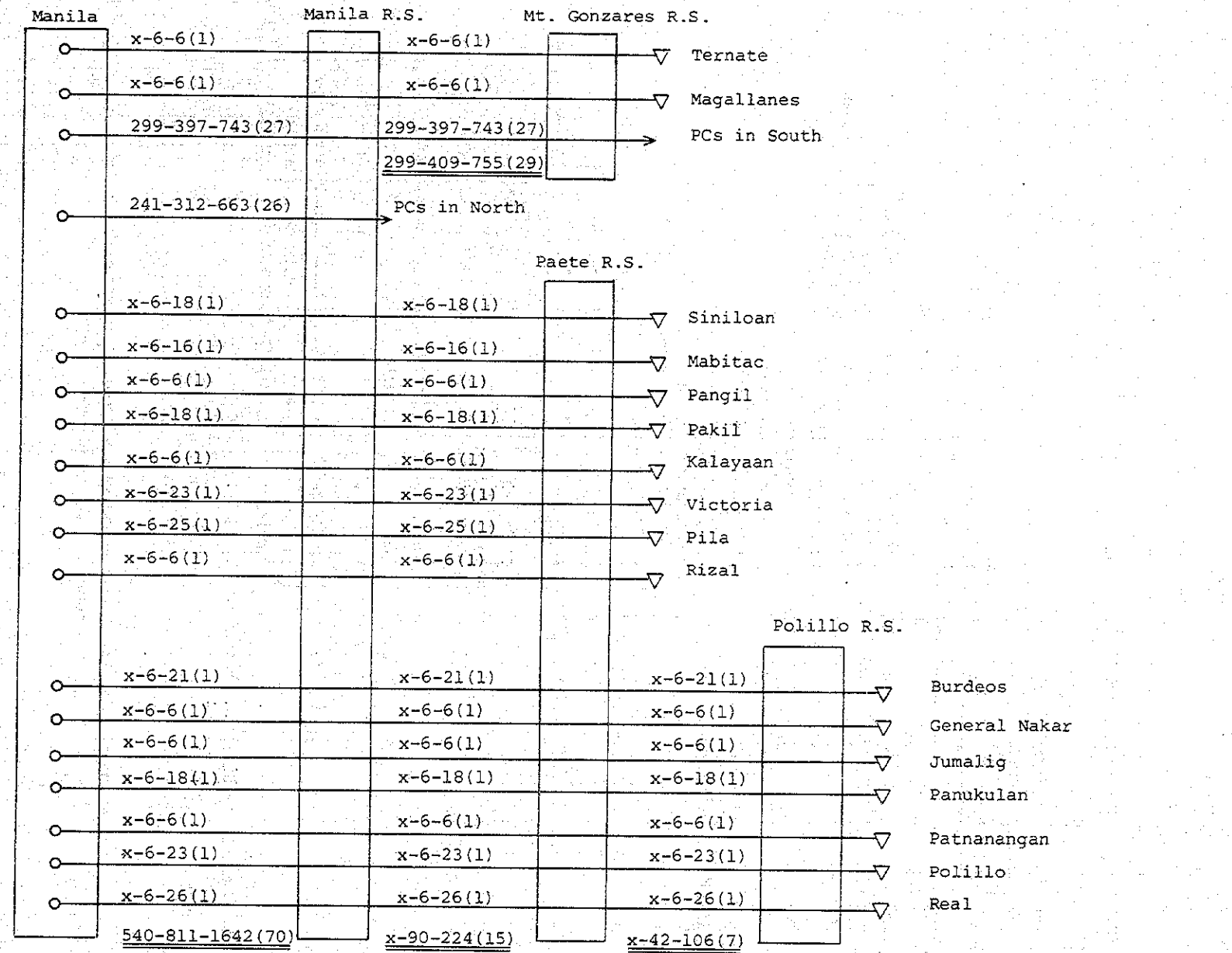


Fig. VII-2-1-1(10/10) Number of Channels and Transmission Capacity between PC and LE (Manila PC Area)

1) Cable PCM system is to be employed for entrance to TS and LE.

2) Trunk cable system is to be employed for entrance to IPTS.

(4) The following methods of connection are to be employed for connection between multiplex and exchange equipment.

1) Connection of the exchange and multiplex equipment at TS and LE is to be made in principle by the primary block of PCM (30 telephone channels).

2) Connection between the exchange and multiplex equipment at IPTS is to be made in voice channels.

The types of connection and the names of offices/stations in Phase I where these types of connection are to be employed are given in Table VII-2-1-1.

(5) For the interconnection of FDM and PCM systems, the following principles have been applied.

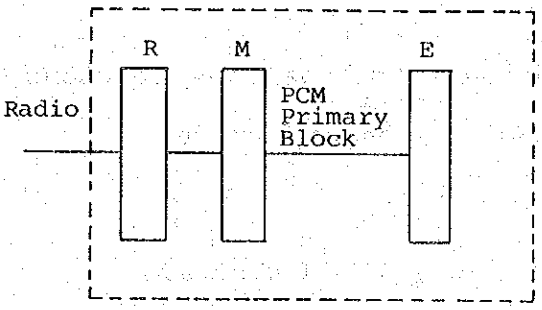
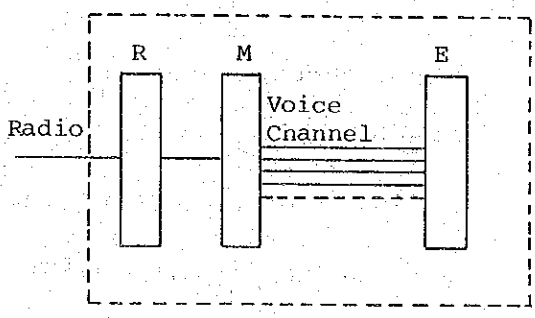
1) When the number of groups to be accommodated in the FDM system is five and the groups are to form a supergroup, one supergroup of FDM system and two primary blocks of PCM system are to be mutually converted.

2) In cases other than item 1) above, FDM and PCM systems are to be connected by voice channels.

Table VII-2-1-1 Connection of Exchange Equipment with Transmission Line

Legend

- ⬚ Facilities to be installed at the same office.
- E: Exchange equipment
- M: Multiplex equipment (in the case of 6-channel radio system, the multiplex equipment is to be incorporated in the radio equipment and thus symbol M is omitted.)
- R: Radio equipment

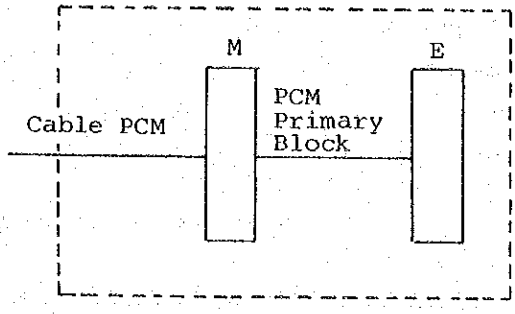
Setup 1	Setup 2
	

Cabanatuan	Dinalupihan	Quezon
Cabiao	Samal	Lubang
Jaen	Batangas	Gloria
Pantabangan	Calaca	Odiongan
Gerona	Ibaan	
Magalang	Mamburao	
La Paz	Sablayan	
Bulacan	Naujan	
San Ildefonso	Roxas	
San Rafael	Victoria	

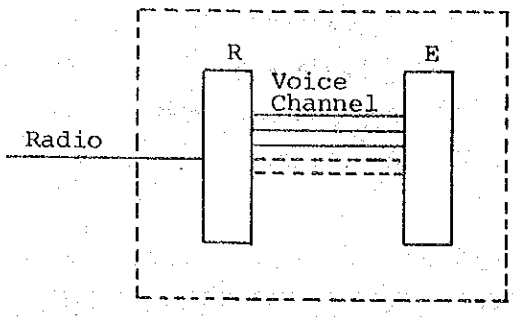
(To next page)

(Continued)

Setup 3

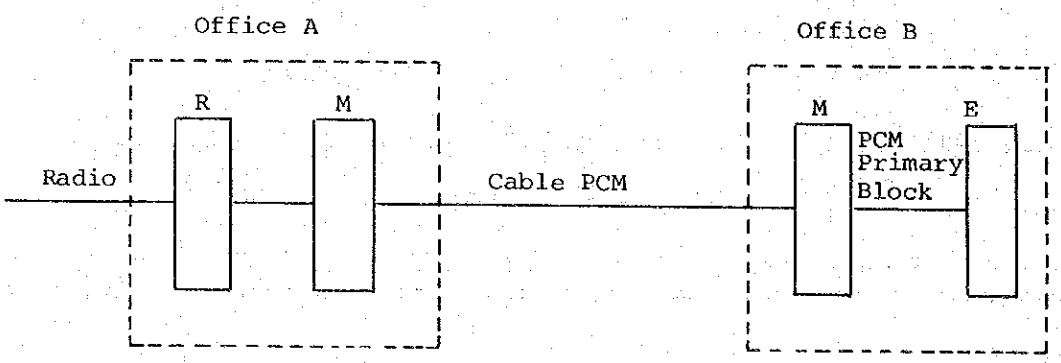


Setup 4



Cabanatuan (to Santa Rosa)	Zaragosa — San Agustin
Santa Rosa	Agoncillo — Sexmoan
Angat	

Setup 5



Office A		Office B
Quezon	----------	Aliaga
Jaen	----------	San Antonio
Tarlac R.S.	----------	[Tarlac]
San Fernando R.S.	----------	[San Fernando]
Porac R.S.	----------	Porac
Samal	----------	Abucay
Pandi R.S.	----------	Pandi
Lucena R.S.	----------	[Lucena]

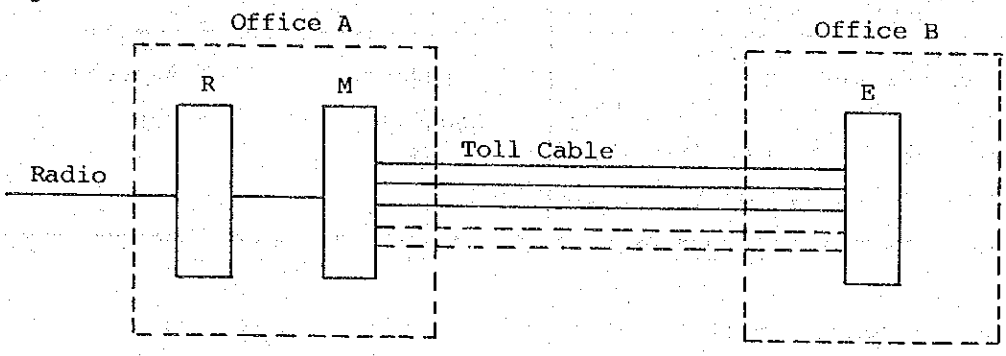
(To next page)

(Continued)

San Jose R.S.	----------	San Jose
Bongabong R.S.	----------	Bongabong
Calapan R.S.	----------	Calapan
Romblon R.S (FDM)	----------	Romblon
Manila R.S.	----------	[Manila]

[ ]: Private operating company

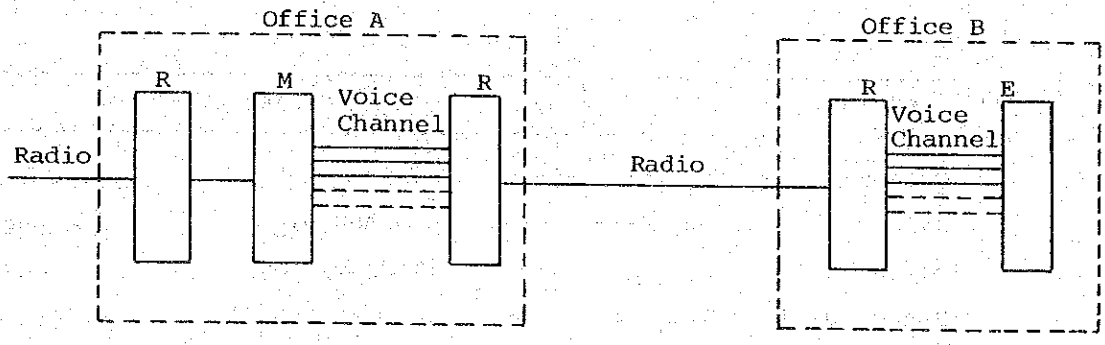
Setup 6



Office A	Office B

P. Galera R.S.	----------	P. Galera

Setup 7



Office A	Office B

Mt. Banoy R.S.	----------	Padre Garcia
Mt. Dumali R.S.	----------	Socorro

2-2 Radio

2-2-1 SHF Route

(1) Route selection

PLDT backborn transmission lines run to the north of Manila passing through Malolos, San Fernando and Tarlac and to the south from Manila through Tagaytay and San Pablo. Therefore, Batangas - Calapan - Romblon and Lecena - Marinduque - Tablas routes were designed in Phase I and San Jose - Tablas route was planned in Phase II by SHF system in this project.

Batangas - Calapan - Romblon route mainly aims at toll telephone service between cities and municipalities in Oriental Mindoro and those in Luzon, Tablas and Romblon islands as well as transmission of TV programs.

Lecena - Marinduque - Tablas - Kalibo route transmits telephone calls among cities and municipalities in Luzon, Marinduque, Tablas, Panay islands, etc., and at the same time constitutes to form a loop route to improve reliability of the national network. San Jose - Tablas route is designed as a back up system for the calls from Palawan and OCC, Mindoro.

In the site selection of the SHF route, consideration has been given to clear the first Fresnel zone at $K = 4/3$. In this case, the tree height at the ridge is estimated to be 15 m in Region III and 20 m in Region IV so as

to obtain the required tower height.

The SHF route to be constructed in this project is shown in Fig. VII-2-2-1. The location, etc., of radio repeater stations are shown in Table VII-2-2-1.

The path profiles of individual spans are shown in Table VII-2-2-2 and Fig. VII-2-2-2.

(2) System design

A 960-channel system is to be adopted for the SHF route and branching and insertion are to be made in UHF and VHF routes depending on the required number of total circuits.

The 960-channel radio system allows the transmission of one color TV signal and the Manila - Batangas - Calapan - Romblon route is to be furnished with necessary facilities for TV signal transmission. For the time being, the protection radio channel is to be used for TV signal transmission. If more demand is to be made for TV signal transmission, a radio channel or channels for TV signal transmission can be added.

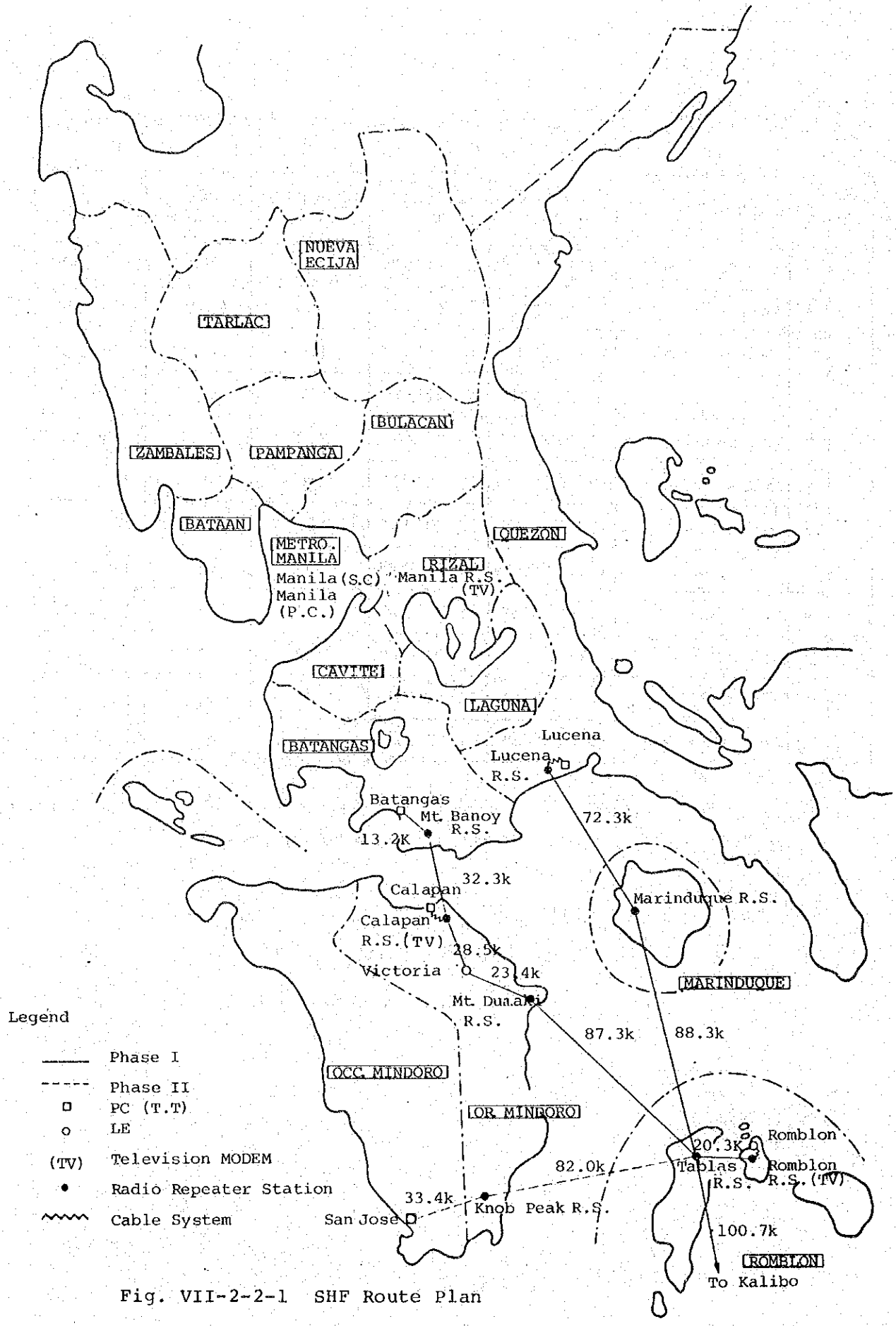


Fig. VII-2-2-1 SHF Route Plan

Table VII-2-2-1 Locations of SHF Radio Repeater Stations

Phase		Repeater Station	Longitude (E)	Latitude (N)	Elevation (m)	Tower Height(m)	Map No.
I	1	Mt. Banoy R.S.	121"09'50"	13°41'55"	968	30	3261 III
	2	Batangas	121°03'39"	13°45'44"	15	(20)	3261 III
	3	Calapan R.S.	121°12'29"	13°24'36"	120	40	3260 III
	4	Victoria	121°16'44"	13°09'41"	20	30	3259 II
	5	Mt. Dumali R.S.	121°29'03"	13°05'40"	390	30	3259 II
	6	Tablas R.S.	122°05'37"	12°34'46"	640	30	3457 IV
	7	Romblon R.S.	122°16'46"	12°33'44"	400	30	3457 I
	8	Lucena R.S.	121°36'35"	13°56'40"	20	30	3361 IV
	9	Marinduque R.S.	121°53'41"	13°21'13"	610	30	3360 II
II	10	Kalibo	122°21'50"	11°42'30°	10	20	
	11	San Jose	121°03'51"	12°21'03"	10	20	3257 III
	12	Knob Peak R.S.	122°20'52"	12°27'57"	890	20	3257 II

Note: Figures in ( ) in the "Tower Height" column indicate the height of the existing tower.

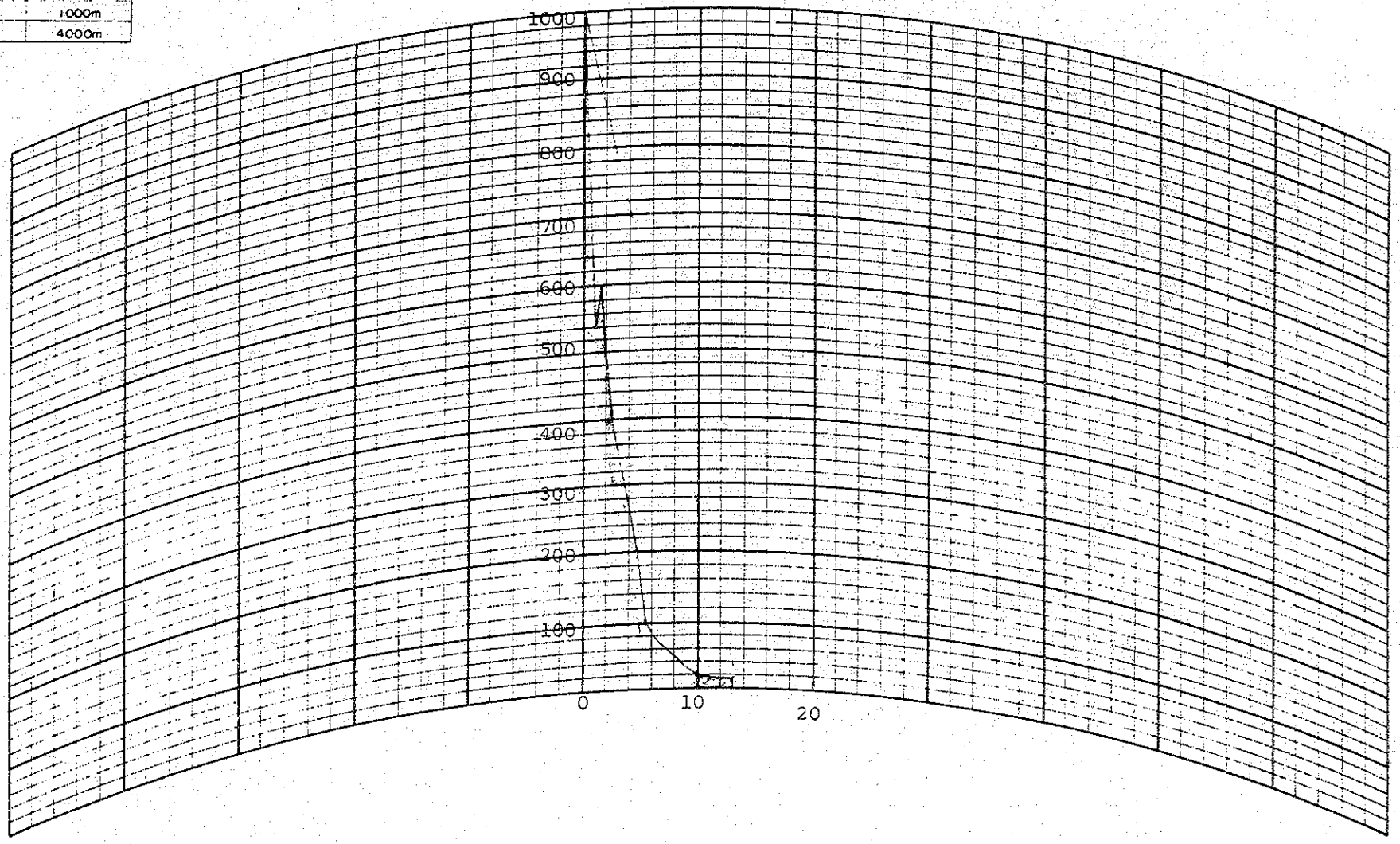
Table VII-2-2-2 Profile List of SHF Spans

Phase	SHF Span	Relevant Figure
I	Mt. Banoy R.S. - Batangas	Fig.VII-2-2-2 (1/17)
	Mt. Banoy R.S.- Calapan R.S.	do. (2/17)
	Calapan R.S. - Victoria	do. (3/17)
	Victoria - Mt. Dumali R.S.	do. (4 /17)
	Mt. Dumali R.S. - Tablas R.S.	do. (5 /17)
	Tablas R.S. - Romblon R.S.	do. (6 /17)
	Lucena R.S. - Marinduque R.S.	do. (7 /17)
	Marinaduque R.S. - Tablas R.S.	do. (8 /17)
	Tablas R.S. - Kalibo	do. (9 /17)
II	San Jose - Knob Peak R.S.	do. (10/17)
	Knob Peak R.S. - Tablas R.S.	do. (11/17)

FULL SCALE

	DISTANCE	HEIGHT
O	60km	250m
	120km	1000m
	240km	4000m

PATH PROFILE (4/3 RADIUS)



SITE: Mt. Banoy R.S.
GROUND ELEVATION: 968 m
ANTENNA HEIGHT: 30 m

DISTANCE: 13.2 km

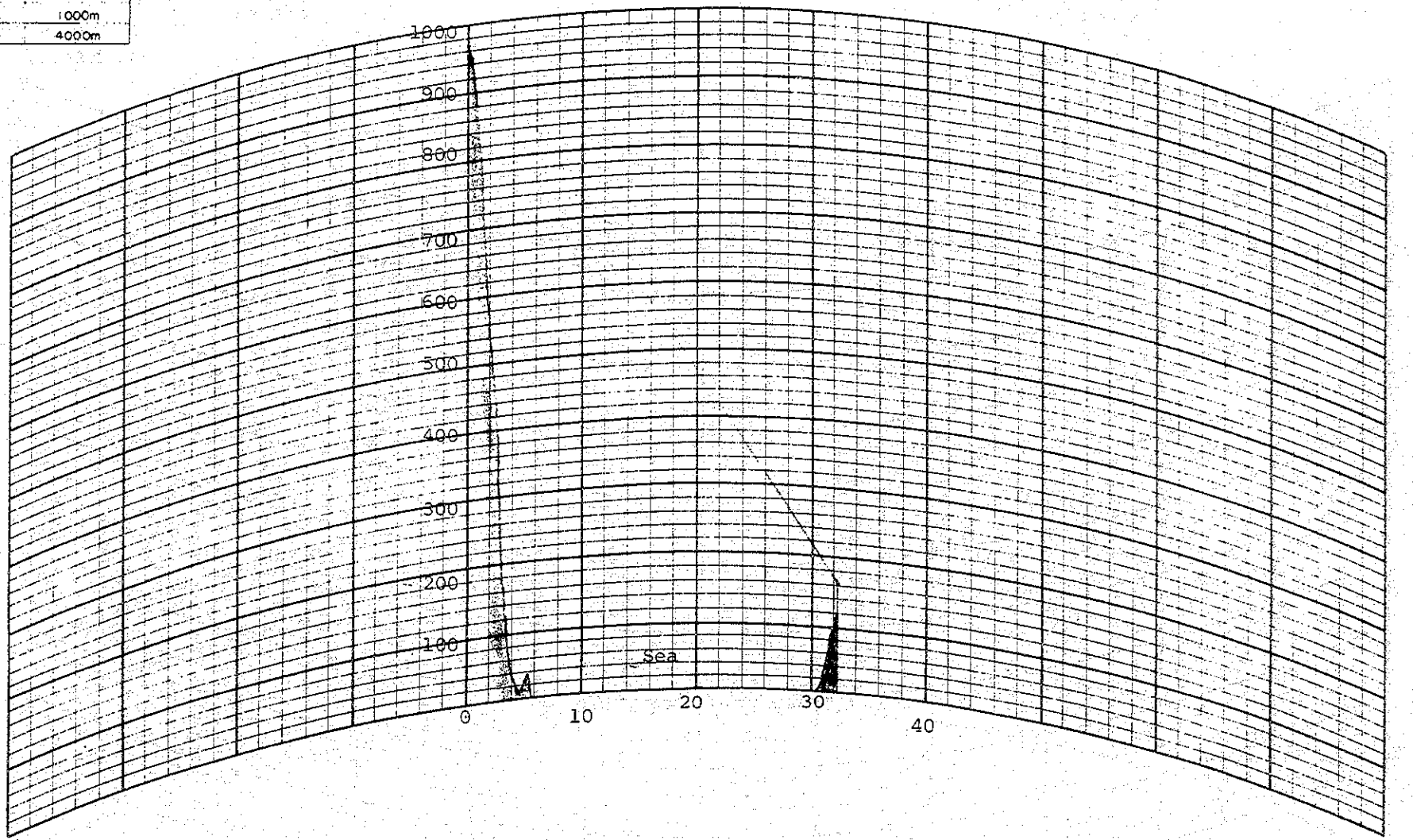
SITE: Batangas
GROUND ELEVATION: 15 m
ANTENNA HEIGHT: 20 m

Fig. VII-2-2-2(1/17)

FULL SCALE

DISTANCE	HEIGHT
60km	250m
120km	1000m
240km	4000m

PATH PROFILE (4/3 RADIUS)



SITE: Mt. Banoy R.S.
GROUND ELEVATION: 968 m
ANTENNA HEIGHT: 30 m

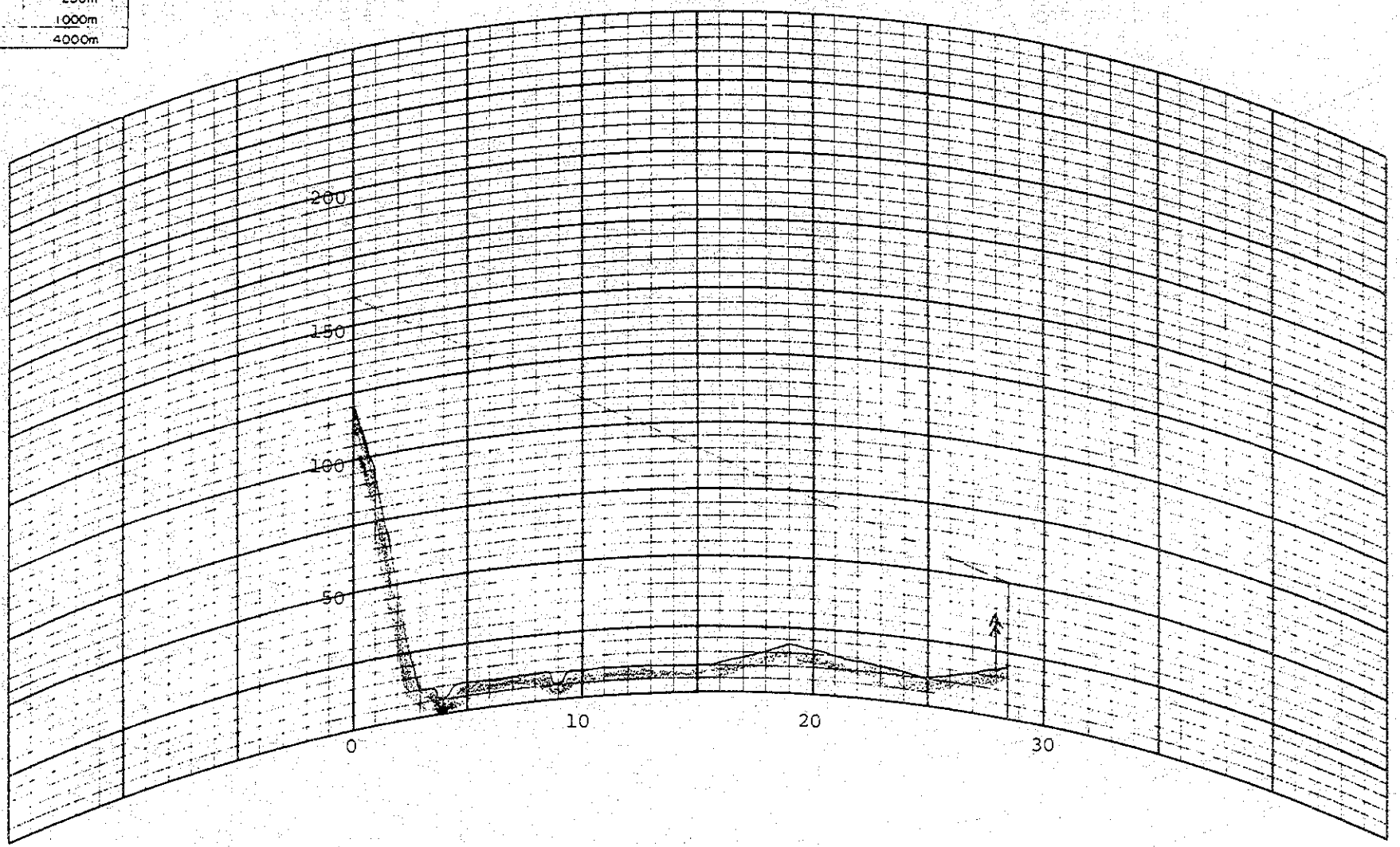
DISTANCE: 32.3 km

SITE: Calapan R.S.
GROUND ELEVATION: 120 m
ANTENNA HEIGHT: 40 m

Fig. VII-2-2-2(2/17)

PATH PROFILE (4/3 RADIUS)

FULL SCALE	DISTANCE	HEIGHT
O	60km	250m
	120km	1000m
	240km	4000m

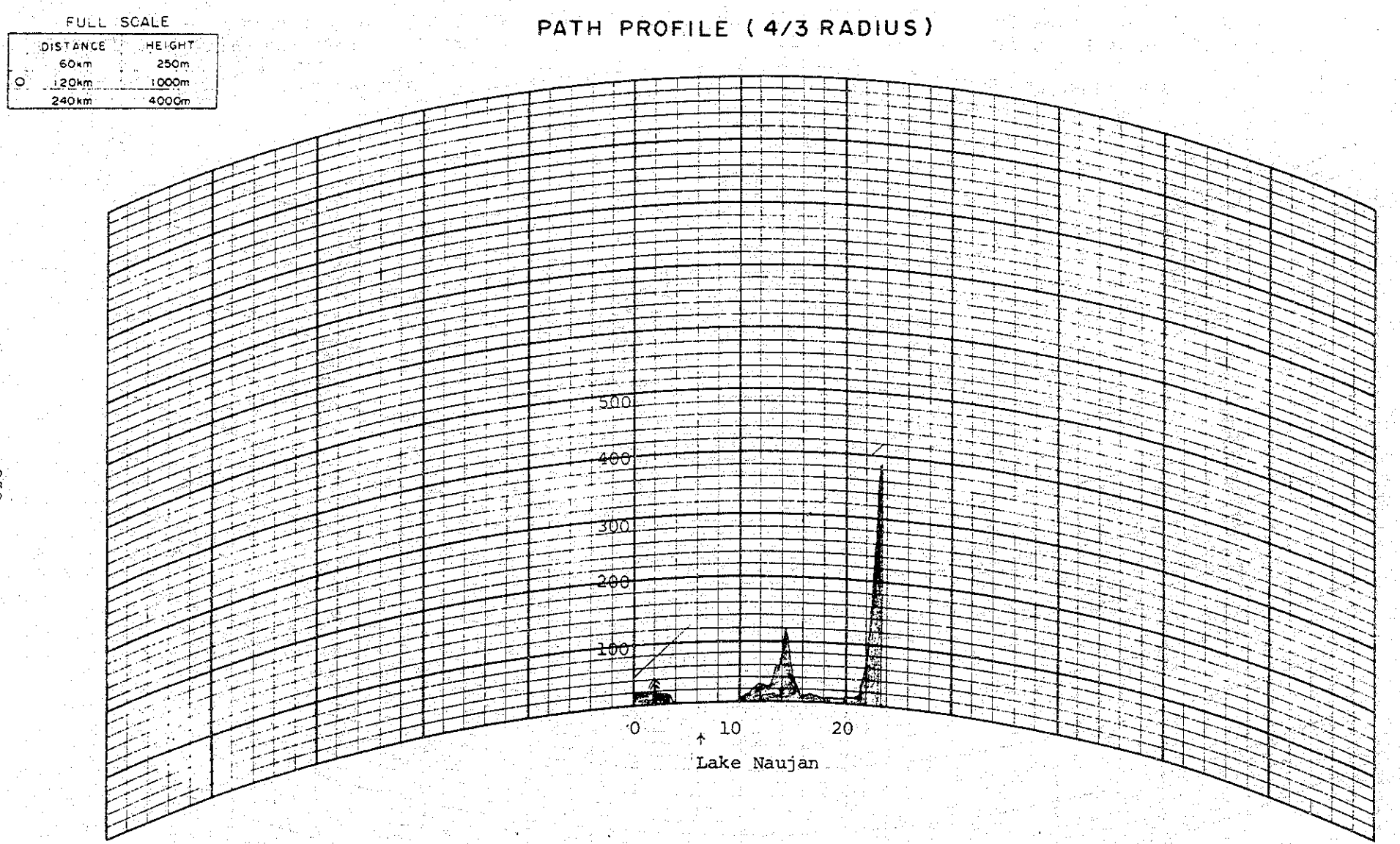


SITE: Calapan R.S.
GROUND ELEVATION: 120 m
ANTENNA HEIGHT: 40 m

DISTANCE: 28.5 km

SITE: Victoria
GROUND ELEVATION: 20 m
ANTENNA HEIGHT: 30 m

Fig. VII-2-2-2(3/17)



SITE: Victoria
GROUND ELEVATION: 20 m
ANTENNA HEIGHT: 30 m

DISTANCE: 23.4 km

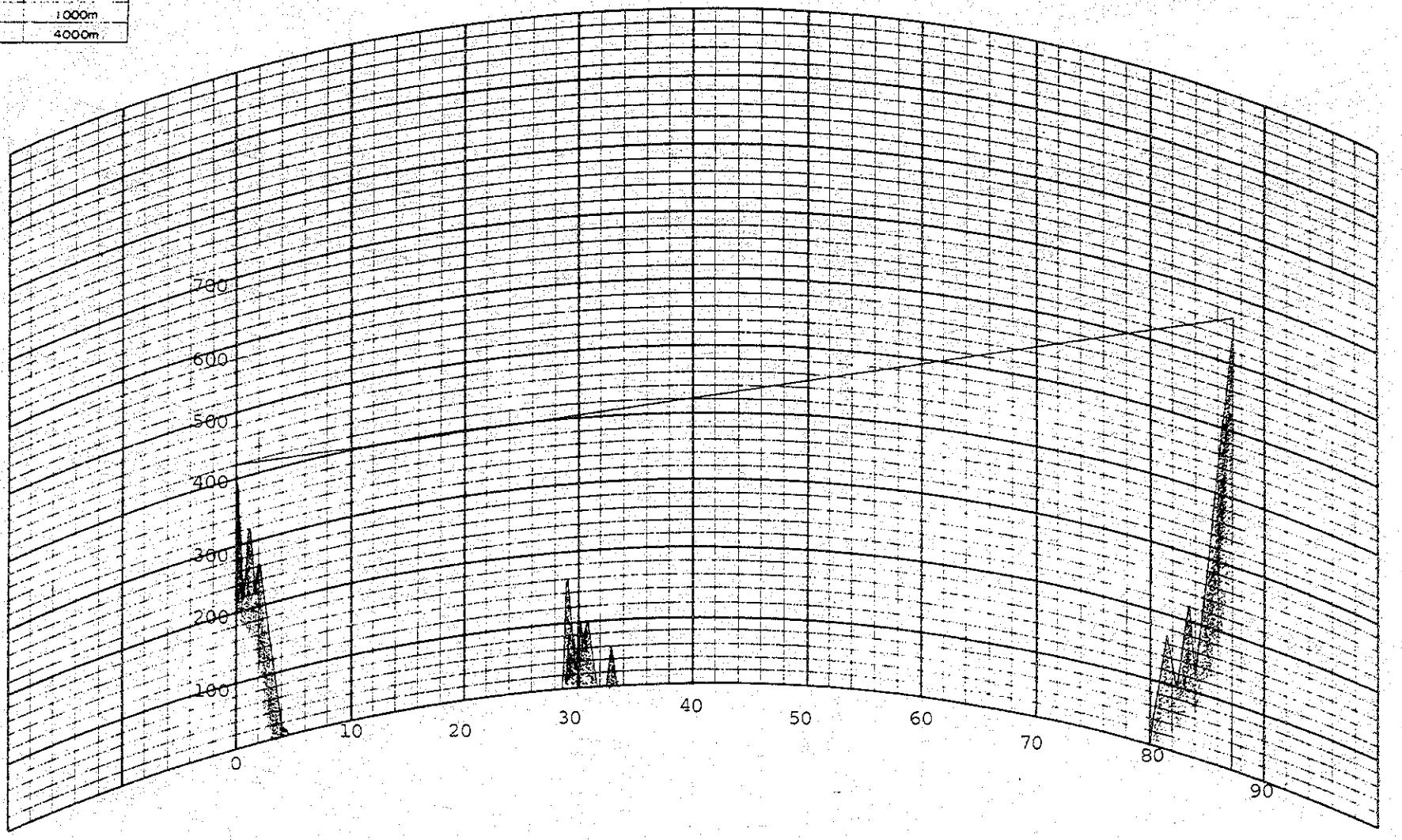
SITE: Mt. Dumali R.S.
GROUND ELEVATION: 390 m
ANTENNA HEIGHT: 30 m

Fig. VII-2-2-2(4/17)

FULL SCALE

	DISTANCE	HEIGHT
	60km	250m
O	120km	1000m
	240km	4000m

PATH PROFILE (4/3 RADIUS)



Mt. Dumali R.S.
SITE
GROUND ELEVATION 390 m
ANTENNA HEIGHT 30 m

DISTANCE: 87.3 km

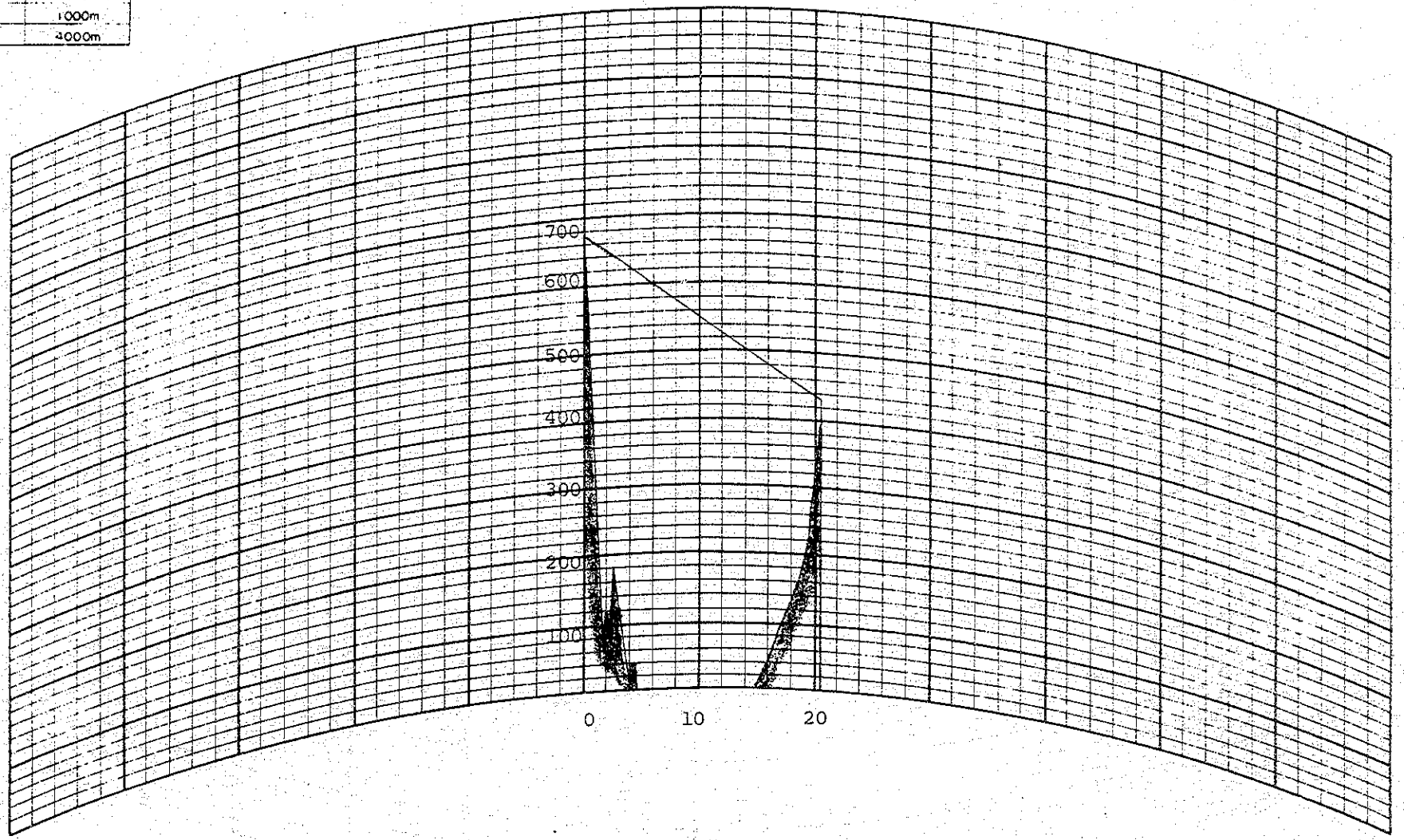
Tablas R.S.
SITE
GROUND ELEVATION 640 m
ANTENNA HEIGHT 30 m

Fig. VII-2-2-2(5/17)

FULL SCALE

	DISTANCE	HEIGHT
	60km	250m
O	120km	1000m
	240km	4000m

PATH PROFILE (4/3 RADIUS)



SITE: Tablas R.S.
GROUND ELEVATION: 640 m
ANTENNA HEIGHT: 30 m

DISTANCE: 20.3 km

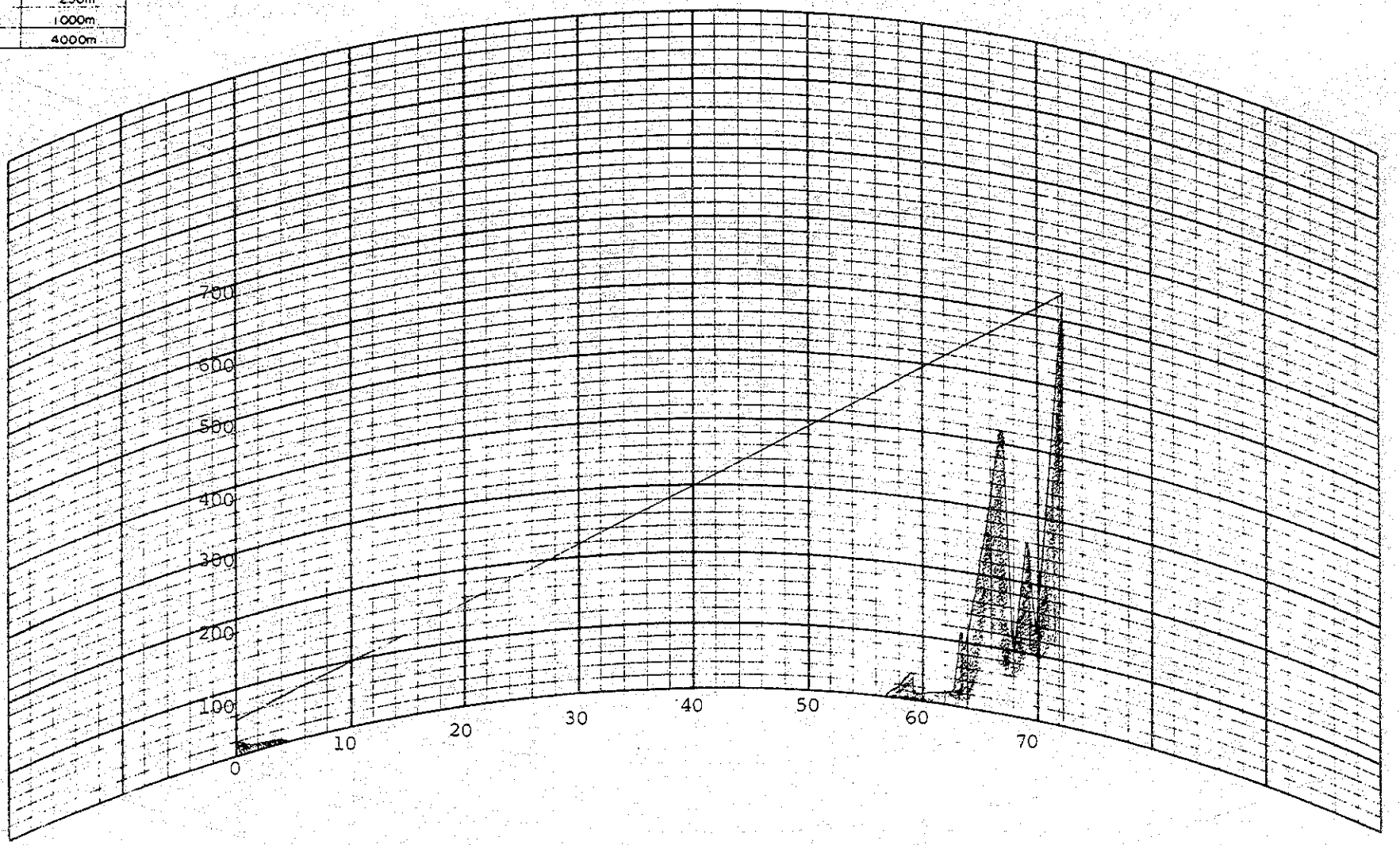
SITE: Romblon R.S.
GROUND ELEVATION: 400 m
ANTENNA HEIGHT: 30 m

Fig. VII-2-2-2(6/17)

FULL SCALE

	DISTANCE	HEIGHT
O	60km	250m
	120km	1000m
	240km	4000m

PATH PROFILE (4/3 RADIUS)



SITE Lucena R.S.
GROUND ELEVATION 20 m
ANTENNA HEIGHT 30 m

DISTANCE 72.3 km

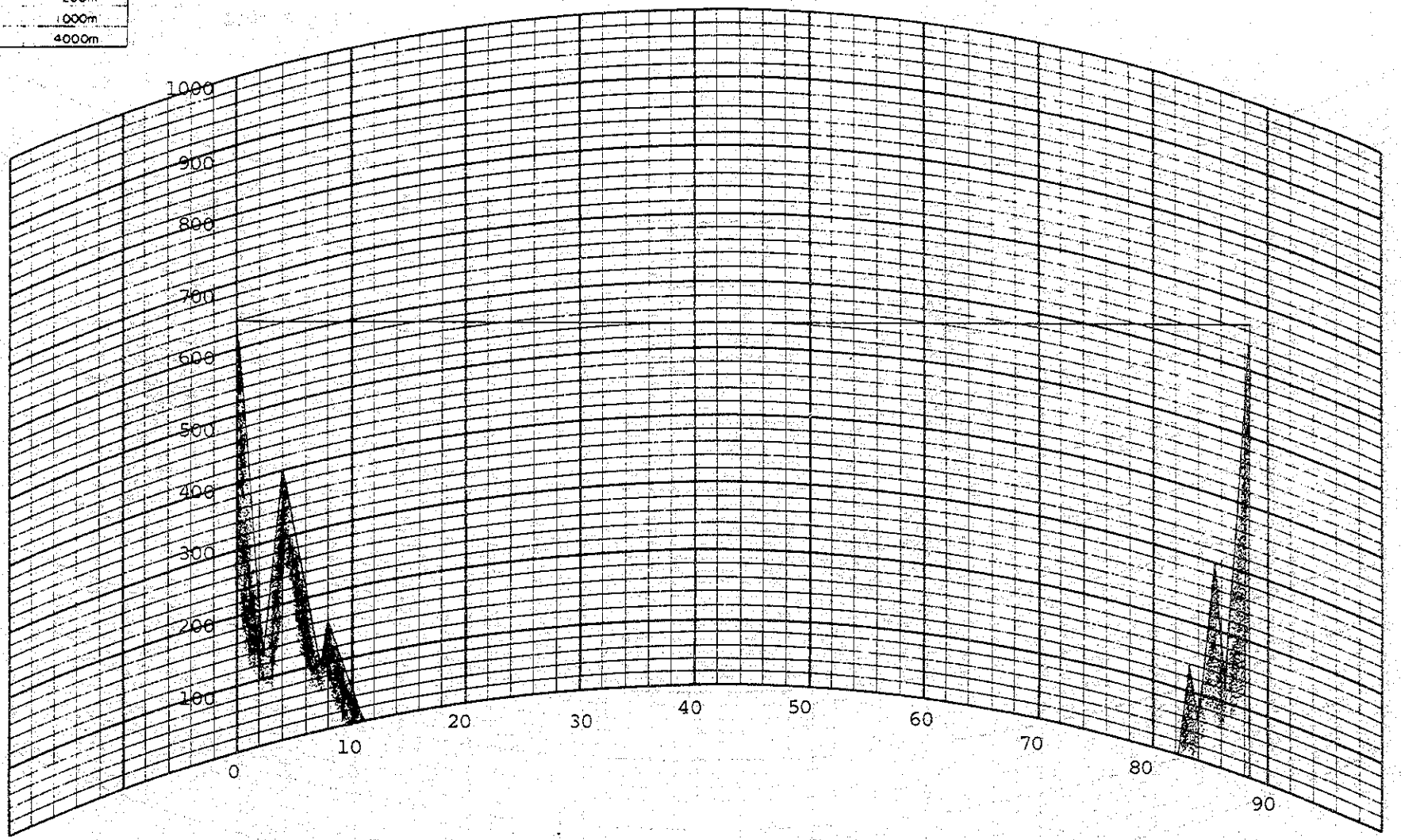
SITE Marinduque R.S.
GROUND ELEVATION 610 m
ANTENNA HEIGHT 30 m

Fig. VII-2-2-2(7/17)

FULL SCALE

DISTANCE	HEIGHT
60km	250m
120km	1000m
240km	4000m

PATH PROFILE (4/3 RADIUS)



SITE: Marinduque R.S.
GROUND ELEVATION: 610 m
ANTENNA HEIGHT: 30 m

DISTANCE: 88.3 km

SITE: Tablas R.S.
GROUND ELEVATION: 640 m
ANTENNA HEIGHT: 30 m

Fig. VII-2-2-2 (8/17)