タイ国

バンコク市都市高速道路網

実施設計報告書

付属書

（C・D・E・F）

昭和47年11月

海外技術協力事業団

日本道路協力株式会社

C. 回線集束表

T2, T4 → PY → T5, T7

NO (1/3)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T5 CABLE 76	T5 CABLE 80	T5 CABLE 90	T5 PCM 76	T5 PCM 80	T5 PCM 90	T7 CABLE 76	T7 CABLE 80	T7 CABLE 90	T7 PCM 76	T7 PCM 80	T7 PCM 90
PY	40	·65L 40 S W					T7	SW							Δ73	Δ75	Δ60			
	40	·65L 40						SW							Δ120	Δ99	Δ135			
	83	65NL 8.3						SW							x219	x132	x168			
	54	65L 38	9L 16 T	K				TK							Δ24	Δ41	Δ58			
	5.2	9L 2.1	5L 3.1 T	C				TC							Δ35	Δ32	Δ33			
	91	65L 40	5NL 5.1					TC							—	x11	x10			
	83	65NL 8.3						SW SPS							x16	x16	x19			
		·65NL						SW							13	22	41			
	20	PCM 2.0 T H					T5	TH				Δ81	Δ73	Δ91						
	20	〃 2.0						TH	x86	x62	x70	Δ41	Δ40	Δ52						
	85	·65L 3.8 S W	5L 4.7 T	H				TH												
	40	PCM 2.0 T H	PCM 2.0 P	D				PD				Δ21	Δ24	Δ37						
	51	〃 2.0	·5L 3.1 B	C				BC				Δ36	Δ33	Δ50						
	53	〃 2.0	·9NL 3.3 D	K				DK				Δ44	Δ45	Δ47						
	20	〃 2.0	PCM — N	K				NK				—	Δ16	Δ21						
	55	〃 2.0	9L 1.1 B	C	65L 2.4 P&R			PSR				Δ17	Δ33	Δ41						
	20	〃 2.0	PCM — P	PJ				PPJ				—	Δ14	Δ24						
	61	〃 2.0	9L 1.3 D	K	65L 2.8 B	KT		BKT				—	Δ35	Δ53						
	20	〃 2.0	PCM — M	SK				MSK				—	Δ21	Δ27						
	60	〃 2.0	5L 4.0 C	HW				CHW				Δ30	Δ38	Δ34						
	86	〃 2.0 T	5NL 6.6 C	HW				CHW				x10	x20	x46						
NN	56	9L 2.4 B	S 9L 1.1 P	Y 9L 2.1 S	W		T7	SW							Δ26	Δ33	Δ52			
	82	9L 2.4	65L 2.0	65L 3.8				SW							x1	x3	x9			
		·9NL	·65NL	65NL				SW							2	4	6			
	55	9L 2.4 B	S 9L 1.1 P	Y PCM 2.0 T	H		T5	TH				Δ18	Δ26	Δ44						
BS	60	9L 1.1 B	S 9L 1.1 P	Y 65L 3.6 S	W		T7	SW							Δ26	Δ30	Δ38			
	69	9L 1.1	65L 2.0	·65L 3.8				SW							x117	x102	x198			
	89	·9L 1.1	·9L 1.1	65L 3.6	·5L 3.1 T	C		TC							—	x11	x38			
		9NL	·65NL	65NL				SW							12	17	37			
	53	9L 1.1 B	S 65L 2.2 P	Y PCM 2.0			T5	TH				Δ34	Δ42	Δ56						
	89	·9NL 2.3	65NL 4.6	〃 2.0 T	H			TH				x40	x34	x69						
	103	9L 1.1	·65L 2.2	〃 2.0 T	H 5NL 5.0 B	C		BC				—	—	x24						
	86	9L 1.1	·65L 2.2	〃 2.0	9NL 3.3 D	K		DK				—	—	x28						
	88	·9L 1.1	·65L 2.2	〃 2.0	9L 1.1 B	C 65L 2.4 PSR		PSR				—	—	x10						
	94	9L 1.1	·65L 2.2	〃 2.0	9L 1.3 D	K 65L 2.8 BKT		BKT				—	—	x14						
	93	9L 1.1	65L 2.2	〃 2.0	5L 4.0 C	HW		CHW				—	x10	x39						
LP-2	50	9L 1.5 L	P 9L 1.4 P	Y 9L 2.1 S	W		T7	SW							Δ24	Δ45	Δ37			
	80	9L 1.5	65L 2.7	·65L 3.8				SW							—	—	x30			
	80	9L 1.5	65L 2.7	65L 3.8				SW							x1	x3	x9			
	51	9L 1.5 L	P 9L 1.6 P	Y PCM 2.0 T	H		T5	TH				Δ20	Δ44	Δ56						
	90	9NL 3.9	·65L 3.1	〃 2.0				TH				—	—	x14						
LP-1	50	65L 2.9 P	Y 9L 2.1 S	W			T7	SW							Δ21	Δ32	Δ38			
	100	65NL 6.0	·65L 4.0					SW							x39	x105	x183			
	79	65L 2.9	9L 1.9	·5L 3.1 T	C			TC							—	x21	x38			
	110	·65L 2.9	65L 3.8 S	W ·9NL 4.3 T	K			TK							—	—	x11			
	100	·65NL 6.0	65L 4.0 S	W				SW							x1	x3	x9			
	51	65L 3.1 P	Y PCM 2.0 T	H			T5	TH				Δ25	Δ50	Δ62						
	80	65NL 6.0	〃 2.0					TH				x26	x45	x80						
	101	65L 3.1	〃 2.0	5NL 5.0 B	C			BC				—	—	x10						
	84	65L 3.1	〃 2.0	9NL 3.3 D	K			DK				—	—	x11						
	91	·65L 3.1	〃 2.0	5L 4.0 C	HW			CHW				—	—	x34						

T2, T4 —— PY —→ T5, T7

NO (2/3)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		T5 CABLE 76	T5 CABLE 80	T5 CABLE 90	T5 PCM 76	T5 PCM 80	T5 PCM 90	T7 CABLE 76	T7 CABLE 80	T7 CABLE 90	T7 PCM 76	T7 PCM 80	T7 PCM 90
I M	5.8	·65L 2.0 PY 65L 3.8 SW	T7	SW							Δ39	Δ34	Δ36			
	9.1	5NL 5.1 65L 4.0		SW							x30	x90	x135			
	9.1	·5NL 5.1 ·65L 4.0		SWSPS							x7	x14	x21			
	10.9	·65NL 4.0 65L 3.8 5L 3.1 TC		TC							—	x11	x30			
		·65NL ·65NL		SW							2	3	5			
	6.0	65NL 4.0 PY PCM 2.0 TH	T5	TH	x22	x36	x57	Δ24	Δ51	Δ55						
	8.7	·65L 2.0 65L 3.6 SW ·65L 3.1 TH		TH												
	11.0	65NL 4.0 PCM 2.0 TH 5NL 5.0 BC		BC				—	—	x10						
	10.4	5NL 4.0 " 2.0 9NL 3.3 DK		DK				—	—	x22						
	10.0	·65NL 4.0 " 2.0 ·5L 4.0 CHW		CHW				—	—	x32						
LS	2.0	PCM 2.0 SW	T7	SW										Δ66	Δ114	Δ141
	2.0	PCM 2.0		SW										Δ21	Δ26	Δ46
	4.1	" 2.0 9L 2.1 TK		TK										Δ9	Δ16	Δ23
	5.3	" 2.0 5L 3.3 TC		TC							x1	x3	x9	Δ12	Δ26	Δ36
	7.2	9L 3.4 PY 65L 3.8 SW		SW							2	4	6			
		9NL 65NL		SW												
	2.0	PCM 2.0 TH	T5	TH				Δ15	Δ21	Δ39						
	2.0	" 2.0		TH				Δ27	Δ34	Δ51						
	5.1	" 2.0 5L 3.1 BC		BC				Δ13	Δ15	Δ25						
	5.3	" 2.0 9NL 3.3 DK		DK				Δ15	Δ19	Δ28						
	4.0	" 2.0 PCM 2.0 PD		PD				Δ8	Δ10	Δ15						
	2.0	" 2.0 PCM — NK		NK				—	Δ8	Δ10						
	5.5	" 2.0 9L 1.1 BC 65L 2.4 PSR		PSR				Δ7	Δ15	Δ21						
	6.1	" 2.0 9L 1.3 DK ·65L 2.8 BKT		BKT				—	Δ16	Δ27						
	6.0	" 2.0 5L 4.0 CHW		CH				Δ11	Δ18	Δ32						
	2.0	" 2.0 PCM — MSK		MSK				—	Δ10	Δ13						
	2.0	" 2.0 " — PPJ		PPJ					Δ7	Δ11						
PTN	2.0	PCM 2.0 LS PCM — SW	T7	SW							—	x2	x9	—	Δ17	Δ31
	29.0/10	9L 7.6 PY ·9L 3.2 LS 9L 2.1 SW		SW												
	2.0	PCM 2.0 LS PCM — TH	T5	TH				—	Δ14	Δ26						
PK	2.0	PCM 2.0 LS PCM — SW	T7	SW							—	x3	x9	—	Δ25	Δ35
	8.2	9L 2.9 PY ·9L 3.2 SW ·9L 2.1 SW		SW							—	4	6			
		9NL ·9NL ·9NL		SW												
	2.0	PCM 2.0 LS PCM — TH	T5	TH				—	Δ20	Δ30						
SDM	4.5	9L 2.5 LS PCM 2.0 SW	T7	SW							—	x3	x9	—	Δ28	Δ34
	9.5	65L 4.2 PY ·9L 3.2 SW 9L 2.1 SW		SW							—	100	155			
		·65NL ·9NL 9NL		SW												
	4.5	9L 2.5 LS PCM 2.0 TH	T5	TH				—	Δ26	Δ25						
	8.2	65NL 6.2 " 2.0		TH				—	—	x10						
BCH	2.0	PCM 2.0 PY PCM — SW	T7	SW							—	x3	x9	—	Δ23	Δ33
	10.0	9L 4.7 PY ·9L 3.2 SW 9L 2.1 SW		SW												
	2.0	PCM 2.0 LS PCM — TH	T5	TH				—	Δ22	Δ36						
RID	4.7	9L 2.7 LS PCM 2.0 SW	T7	SW							—	x2	x9	—	Δ22	Δ35
	9.7	9L 2.5 PY 9L 3.4 ·65L 3.8 SW		SW							2	4	6			
		65NL ·9NL ·65NL		SW												
	4.7	·9L 2.7 LS PCM 2.0 TH	T5	TH				—	Δ21	Δ38						

T2, T4 → PY → T1, T1 (SR)

NO (1/3)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T1 CABLE 76	T1 CABLE 80	T1 CABLE 90	T1 PCM 76	T1 PCM 80	T1 PCM 90	T1 (SR) CABLE 76	T1 (SR) CABLE 80	T1 (SR) CABLE 90	T1 (SR) PCM 76	T1 (SR) PCM 80	T1 (SR) PCM 90
PY	5.0	·5L 50 KK					T1	KK	△95	△51	△66									
	5.0	·5L 50						KK	△76	△58	△76									
	6.7	65NL 67						KK	×166	×114	×44									
	3.4	65L 34						KKTOLL	·90	·90	·104									
	6.7	·65NL 6.7						KKTOLL	×54	×54	×63									
		·65NL						KKTEST	30	30	36									
		·65NL						KKOBS	4	4	4									
	6.7	·65NL 67						KK	×58	×110	×133									
	6.6(60)	1 5L 6.6 SR						SR							△117	△108	△96			
	6.6	(67) 5L 6.6						SR							×231	×186	×201			
		5NL						SR							8	13	25			
LP2	5.9	·9L 1.5 LP1	65L 2.7 PY	9L 1.7 KK			T1	KK	△40	△37	△25									
	9.0	9L 1.5	65L 2.7	5L 4.8				KK	—	×40	×20									
	4.6(40)	·9L 1.5	·9L 1.4	1 ·9L 1.7				KKTOLL	·22	·52	·80									
	9.0	·9L 1.5	·65L 2.7	(22) 5L 4.8				KKTOLL	×14	×31	×46									
		9NL	·65NL	·5NL				KKTEST	6	18	30									
		·	·	·				KKOBS	3	3	3									
	9.0	9L 1.5	65L 2.7					KK	×11	×23	×34									
	9.4	·9L 1.5	·9L 1.5	5L 6.4 SR				SR							—	—	×66			
LPI	6.1	·65L 2.9 PY	·65L 3.2 KK				T1	KK	△35	△39	△51									
	11.0	·65NL 6.0	5L 5.0					KK	×48	×70	×82									
	3.2	9L 1.5	9L 1.7					KKTOLL	·33	·66	·120									
	11.0	·65NL 6.0	·5L 5.0					KKTOLL	×20	×39	×68									
		65NL	·5NL					KKTEST	10	24	48									
		·	·					KKOBS	3	3	3									
	11.0	· 6.0	·5L 5.0					KK	×1	×3	×9									
	9.3	·65L 2.9	·5L 6.4 SR					SR							×63	×111	×204			
IM	5.2	65L 2.0 PY	·65L 3.2 KK				T1	KK	△44	△29	△37									
	10.1	5NL 5.1	5L 5.0					KK	×44	×66	×68									
	3.7	·65L 2.0	·9L 1.7					KKTOLL	·38	·80	·129									
	10.1	5NL 5.1	·5L 5.0					KKTOLL	×23	×46	×73									
		·5NL	·5NL					KKTEST	12	30	52									
		·	·					KKOBS	3	3	3									
	10.1	·5NL 5.1	·5L 5.0					KK	×11	×23	×34									
	10.6	65NL 4.0	·5L 6.6 SR					SR							—	×69	×105			
		·65NL	·5NL					SR							3	5	10			
LS	2.0	PCM 2.0 KK					T1	KK				△30	△44	△54						
	2.0	· 2.0						KK				△42	△86	△92						
	2.0	· 2.0						KKTOLL				·17	·25	·47						
	6.6	·9L 3.4 PY	·65L 3.2 KK					KKTOLL	×12	×17	×30									
		·9NL	·65NL					KKTEST	4	8	16									
		·	·					KKOBS	3	3	3									
	5.2	PCM 2.0 KK	·5L 3.2 PTW					PTW				△22	△66	△76						
	7.1	· ·	·5NL 5.1					PTW				—	—	20						
	8.2	·9L 3.4 PY	·5L 4.8 KK					KK	×11	×23	×34									
	5.6	PCM 2.0 KK	·5NL 3.6 SR					SR				△51	△105	△159						
	5.4	· 2.0	65NL 3.4 SS					SS				△13	△44	△66						
	6.4	· 2.0	·5NL 4.4					SS				—	—	×16						
	4.9	· 2.0	·65L 2.9 BP					BP				△22	△33	△48						
PTN	2.0	PCM 2.0 PY					T1	KK				—	△31	△52						
	3.9	· 2.0 PY	·9L 1.9 KK					KKTOLL				·9	·17	·33						
	8.7	· 2.0 PY	·65NL 6.7 KK					KKTOLL	×7	×11	×20									
		·9NL LS	·9NL PY	65NL KK				KKTEST	2	4	10									
		·	·	65NL KK				KKOBS	—	3	3									
	7.1	PCM 2.0	PCM —	·5NL 5.1 PTW				PTW				—	—	×13						
	6.4	PCM 2.0	PCM —	KK ·5NL 4.4 SS				SS				—	—	×26						
	25.1(0)	·9L 7.6	·9L 3.2	1 ·9L 1.7 KK (10)				KK	×10	×22	×34									

T2 / T4 —— PY —— T1 T1 (SR)

NO (2/3)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		T1 CABLE 76	T1 CABLE 80	T1 CABLE 90	T1 PCM 76	T1 PCM 80	T1 PCM 90	T1 (SR) CABLE 76	T1 (SR) CABLE 80	T1 (SR) CABLE 90	T1 (SR) PCM 76	T1 (SR) PCM 80	T1 (SR) PCM 90
PK	2 0	PCM 2 0 LS PCM — KK	T1	KK				—	Δ43	Δ59						
	2.0	PCM 2.0 · —		KKTOLL				—	·25	·38						
	7 8	9L 2.9 ·9L 3.2 PY 9L 1.7 KK		KKTOLL	—	x16	x23									
		9NL 9NL 9NL		KKTEST	—	8	12									
		· · ·		KK OBS	—	3	3									
	7 1	PCM 2.0 LS PCM — KK 5NL 5.1 PTW		PTW				—	x10	x16						
	7 8	9L 2 9 9L 3.2 PY 9L 1.7 KK		KK	—	x 3	x 9									
	6 4	PCM 2 0 PCM — KK 5NL 4 4 SS		SS				—	—	x34						
SDM	4 5	9L 2 5 LS PCM 2 0 KK	T1	KK				—	Δ45	Δ45						
	72(40)	9L 2 3 ·9L 3 2 PY 9L 1 7 KK		KKTOLL	—	·25	·33									
	10 5	9L 4 1 9L 3.2 65L 3 2		KKTOLL	—	x16	x20									
		65NL 9NL 65NL		KKTEST	—	8	10									
		· " ·		KKOBS	—	3	3									
	9 5	65L 4 3 PCM 2 0 KK 5L 3 2 PTW		PTW				—	x15	x21						
	10 6	65L 4 2 9L 3.2 PY 65L 3.2 KK		KK	—	x 3	x 9									
	10.7	65L 4 3 PCM 2 0 KK 5NL 4 4 SS		SS				—	—	x12						
BCH	2.0	PCM 2 0 LS PCM — KK	T1	KK				—	Δ43	Δ49						
	9 6	9L 4 7 9L 3 2 PY 9L 1.7 KK		KKTOLL	x 7	x16	x25									
		9NL 9NL 9NL		KKTEST	5	8	14									
				KKOBS	—	3	3									
	10 1	9L 4 7 PCM — KK 5L 3 2 PTW		PTW				—	—	x21						
	9.6	9L 4 7 9L 3 2 PY 9L 1 7 KK		KK	—	x 3	x 9									
	10 3	9L 4 9 PCM 2 0 KK 65NL 3 4 SS		SS				—	—	x15						
RID	4 7	9L 2 7 LS PCM 2.0 KK	T1	KK				—	Δ41	Δ39						
	74(40)	9L 2 5 9L 3 2 PY 9L 1 7 KK		KKTOLL	·9	·24	·42									
	10 6	9L 2 5 9L 3 4 BP 9NL 4 7 KK		KKTOLL	x 7	x15	x26									
		9NL 9NL 9NL		KKTEST	2	8	14									
		· · ·		KKOBS	—	3	3									
	9.8	9L 2.7 PCM 2.0 KK 5L 5.1 PTW		PTW				—	—	x29						
	10 6	9L 2.5 9L 3.2 PY 9NL 4 7 KK		KK	—	x 2	x 9									
	10 3	9L 2.7 PCM 2.0 BP 65NL 5.6		BP				—	—	x11						
	9 1	9L 2 7 · 2.0 SS 5NL 4.4		SS				—	—	x16						
RS	2 0	PCM 2 0 LS PCM — KK	T1	KK				—	Δ37	Δ59						
	2 0	· 2.0 " —		KKTOLL				·9	·17	·33						
	10 1	9 L 5.2 9L 3 2 PY 9L 1 7 KK		KKTOLL	x 7	x11	x20									
		9NL 9NL 9NL		KKTEST	5	4	10									
		· · ·		KKOBS	—	3	3									
	7 1	PCM 2 0 PCM — KK 5NL 5.1 PTW		PTW				—	—	x16						
	10 1	9L 5 2 9L 3.2 PY 9L 1.7 KK		KK	—	x 2	x 9									
DM	2 0	PCM 2 0 LS PCM — KK	T1	KK				Δ51	Δ49	Δ55						
	2.0	PCM 2.0 · —		KKTOLL				·22	·27	·40						
	10 6	9L 2.3 9L 3.2 65L 3.2		KKTOLL	x14	x17	x25									
		9NL 9NL 65NL		KKTEST	6	8	14									
		· · ·		KKOBS	3	3	3									
	9 6	9L 2 5 PCM 2 0 KK 5NL 5 1 PTW		PTW				—	x16	x42						
	8 7	9L 2 3 9L 3 2 PY 65L 3 2 KK		KK	x25	x50	x65									
	8 9	9L 2.5 PCM 2 0 KK 5NL 4.4 SS		SS				—	—	x15						
		9NL 9NL PY 5NL SR		SR							3	5	10			
NWW	5 4	9L 1 6 NWb 9L 2 1 PY 9L 1 7 KK	T1	KK	Δ57	Δ51	Δ52									
	54(40)	9L 1 6 9L 2.1 LW 9L 1.7		KKTOLL	·33	·33	·47									
	7 1	9L 1 6 9L 2 3 65L 3 2		KKTOLL	x20	x20	x29									
		9NL 9NL 65NL		KKTEST	10	10	16									
		· · ·		KK OBS	3	3	3									
	7 1	9L 1 6 9L 2 3 65L 3 2		KK	x36	x26	x24									
	7 1	9L 1 6 9L 2 3 65L 3 2		KK	x 3	x 5	x10									
	9 0	·9L 1 6 9L 2.1 PY 9L 1 7 KK 5NL 3 6 SR		SR							x42	x33	x48			
	10.1	·9L 1.6 ·9L 2.1 ·5L 6 4		SR							x 3	x 5	x10			

T2 ——— PY ——— T1, T1 (SR)
T4

NO (3/3)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T1 CABLE 76	T1 CABLE 80	T1 CABLE 90	T1 PCM 76	T1 PCM 80	T1 PCM 90	T1 (SR) CABLE 76	T1 (SR) CABLE 80	T1 (SR) CABLE 90	T1 (SR) PCM 76	T1 (SR) PCM 80	T1 (SR) PCM 90
	56	9L 24 PY	65L 32 K	K				KK	Δ_{42}	Δ_{33}	Δ_{38}									
	41	9L 24	9L 17					KKTOLL	33	23	35									
	93	9L 26	65NL67					KKTOLL	$^{x}20$	$^{x}15$	$^{x}22$									
		9NL	65NL					KKTEST	10	8	12									
BK								KKOBS	3	3	3									
	93	9L 26	65NL67					KK	$^{x}60$	—	—									
	93	9L 24	65NL67				T1	KK	$^{x}13$	$^{x}25$	$^{x}35$									
		9NL	65NL					KK	2	3	5									
	79	9L 26	9NL 53 S	S				SS	$^{x}11$	—	$^{x}33$									
	106	9L 26	9NL 53 S	S	5NL 27 B	P		BP	$^{x}11$	—	$^{x}10$									
	88	9L 24	5L 64 S	R				SR							$^{x}30$	—	—			
		9NL	5NL					SR							3	5	10			

T2 BK ——— PY ——— T1(PTW)

NO (1/1)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS						DESTINATION OFFICE		T1 (PTW) CABLE 76	80	90	PCM 76	80	90	CABLE 76	80	90	PCM 76	80	90
P Y	4.5	5L 4.5 PTW						T1	PTW	Δ42	Δ39	Δ51									
	7.7	·5NL 7.7							PTW	x28	x119	x149									
N N	8.7	·9L 2.4 B,SD	·65L 2.0 PY	5L 4.3 PTW				T1	PTW	—	x28	x56									
B S	11.0	9L 1.1 B,SD	65L 2.2 PY	5NL 7.7 PTW				T1	PTW	x13	x69	x162									
L P2	8.5	9L 1.5 LP-1	65L 2.7 PY	·5L 4.3 PTW				T1	PTW	—	x41	x71									
L P1	10.5	65NL 6.0 PY	5L 4.5 PTW					T1	PTW	—	x76	x158									
I M	9.6	·5NL 5.1 PY	5L 4.5 PTW					T1	PTW	—	x73	x128									
NWW	8.2	·9L 1.6 NWB	9L 2.3 PY	5L 4.3 PTW				T1	PTW	—	x23	x49									
B K	10.3	9L 2.6 PY	5NL 7.7 PTW					T1	PTW	x11	x28	x47									
								SUB	4 db												
									6 db	42	39	51									
								TOTAL	11 db	52	457	820									
								GRAND TOTAL		94	496	871									

T2 ——— PY ——— T3 T6

NO (1/1)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS						DESTINATION OFFICE		T3 CABLE 76	T3 CABLE 80	T3 CABLE 90	T3 PCM 76	T3 PCM 80	T3 PCM 90	T6 CABLE 76	T6 CABLE 80	T6 CABLE 90	T6 PCM 76	T6 PCM 80	T6 PCM 90
PY	2.0	PCM 20 P KN						T6	PKN										$^{\Delta}15$	$^{\Delta}23$	$^{\Delta}21$
	2.0	• 20							PKN										$^{\Delta}41$	$^{\Delta}35$	$^{\Delta}31$
	7.8	65L 2.8 A SD	65L 5.0 P KN						PKN							—	$^{x}14$	$^{x}24$			
	4.9	65L 2.8 A SD	9L 2.1 C P						CP							$^{\Delta}76$	$^{\Delta}58$	$^{\Delta}62$			
	10.0	65NL 6.1	65L 3.9						CP							$^{x}128$	$^{x}56$	$^{x}48$			
	5.6	PCM 2.0 P KN	5L 3.6 B N						BN										$^{\Delta}53$	$^{\Delta}62$	$^{\Delta}53$
	7.4	9L 4.0	·5L 3.4						BN							$^{x}28$	—	—			
	5.4	PCM 2.0	·65L 2.2	·9L 1.2 P S					PS										$^{\Delta}30$	$^{\Delta}34$	$^{\Delta}29$
	8.1	·9L 4.0	• 2.0	·65L 2.1					PS							$^{x}10$	$^{x}12$	$^{x}11$			
	2.0	PCM 2.0	PCM — S MP						SMP										$^{\Delta}30$	$^{\Delta}42$	$^{\Delta}51$
	7.9	PCM 2.0	65L 2.2 B N	·65L 1.9 P S	·9L 1.8 S MP				SMP										$^{x}10$	—	—
	2.0	PCM 2.0	PCM — B YP						BYP										—	$^{\Delta}24$	$^{\Delta}30$
	4.8	PCM 2.0	65L 2.8 O NI						ONI										—	$^{\Delta}48$	$^{\Delta}45$
	8.0	·9L 4.0	5L 4.0						ONI							—	—	$^{x}10$			
	2.0	PCM 2.0	PCM — O N2						ON2										—	$^{\Delta}41$	$^{\Delta}39$
	2.0	• 2.0	• — L KB						LKB										—	$^{\Delta}23$	$^{\Delta}23$
	5.9	65NL 5.9 A SD						T3	ASD	$^{\Delta}40$	$^{\Delta}35$	$^{\Delta}40$									
	5.9	65NL 5.9							ASD	16	91	103									
NN	5.7	9L 3.7 P Y	PCM 2.0					T6	PKN										$^{\Delta}25$	$^{\Delta}34$	$^{\Delta}44$
	10.5	9L 2.4 B SD	65L 2.2 P Y	·65NL5.9 A SD				T3	ASD	—	—	$^{x}30$									
BS	4.4	9L 2.4 P Y	PCM 2.0					T6	PKN										$^{\Delta}47$	$^{\Delta}51$	$^{\Delta}74$
	7.1	9L 1.1 B SD	65L 2.0 P Y	9L 4.0 P KN					PKN							—	—	$^{x}17$			
	9.7	9L 1.1	·65L 2.0	·65L 6.6 C P					CP							$^{x}48$	$^{x}20$	$^{x}58$			
	8.4	9L 2.4 P Y	9L 3.8 P KN	65L 2.2 B N					BN							—	—	$^{x}26$			
	8.5	9L 2.4	·9L 3.8	9L 1.2	·9L 1.1 P S				PS							—	—	$^{x}32$			
	10.0	9L 4.4	PCM 2.0	·9L 3.6 O N2					ON2										—	—	$^{x}10$
	8.6	·9L 2.4	9L 3.9	·65L 2.4 O NI					ONI							—	—	$^{x}17$			
	9.2	9L 1.1 B SD	65L 2.2 P Y	·65NL5.9 A SD				T3	ASD	$^{x}12$	$^{x}50$	$^{x}106$									
LP2	10.3	9L 1.5 L P1	65 L2.9 P Y	65NL5.9 A SD				T3	ASD	—	$^{x}20$	$^{x}44$									
LP1	5.1	65L 3.1 P Y	PCM 2.0 P KN					T6	PKN										$^{\Delta}39$	$^{\Delta}66$	$^{\Delta}82$
	10.4	65NL 6.0	9L 4.4						PKN							—	$^{x}10$	$^{x}19$			
	8.2	65L 2.9	·9L 1.4 A SD	·65L 3.9 C P					CP							$^{x}26$	$^{x}60$	$^{x}84$			
	8.9	65L 2.9	9L 3.8 P KN	65L 2.2 B N					BN							—	—	$^{x}34$			
	9.0	65L 2.9	9L 3.8	9L 1.2 B N	·9L 1.1 P S				PS							—	$^{x}22$	$^{x}40$			
	9.6	65NL 4.0	PCM 2.0	9L 3.6 O N2					ON2										—	—	$^{x}26$
	9.3	65L 3.1	·PCM 2.0	·5L 4.2 O NI					ONI										—	—	$^{x}32$
	9.0	65L 3.1	·65NL5.9 A SD					T3	ASD	—	$^{x}57$	$^{x}105$									
IM	6.0	65NL4.0 P Y	PCM 2.0 P KN					T6	PKN										$^{\Delta}33$	$^{\Delta}56$	$^{\Delta}67$
	9.3	5NL 5.1	9L 4.2						PKN							—	$^{x}14$	$^{x}22$			
	8.5	65L 2.0	·65L 2.6 A SD	·65L 3.9 C P					CP							$^{x}20$	$^{x}54$	$^{x}66$			
	10.2	65NL 4.0	9L 4.0 P KN	·65L 2.2 B N					BN							—	—	$^{x}29$			
	10.3	65NL 4.0	·9L 4.0	·9L 1.2 B N	9L 1.1 P S				PS							—	$^{x}22$	$^{x}34$			
	10.2	65NL 4.0	·9L 4.2	PCM 2.0 S MP					SMP							—	—	22			
	10.7	5NL 5.1	PCM 2.0	9L 3.6 O N2					ON2										—	—	$^{x}16$
	10.4	65NL 4.0	9L 4.0	·65L 2.4 O NI					ONI							—	—	$^{x}18$			
	11.0	5NL 5.1	·65NL5.9 A SD					T3	ASD	—	$^{x}51$	$^{x}82$									

T4 ——PY——→ T3, T6

NO (1/1)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		T3 CABLE 76	T3 CABLE 80	T3 CABLE 90	T3 PCM 76	T3 PCM 80	T3 PCM 90	T6 CABLE 76	T6 CABLE 80	T6 CABLE 90	T6 PCM 76	T6 PCM 80	T6 PCM 90
LS	2.0	PCM 2.0 P KN	T6	PKN										Δ_{25}	Δ_{36}	Δ_{57}
	2.0	PCM 2.0		PKN										Δ_{17}	Δ_{36}	Δ_{55}
	5.6	〃 2.0 5L 3.6 B N		BN										Δ_{23}	Δ_{24}	Δ_{35}
	5.4	〃 2.0 65L 2.2 9L 1.2 P S		PS										Δ_{15}	Δ_{24}	Δ_{35}
	2.0	〃 2.0 PCM — S NP		SMP										Δ_{15}	Δ_{17}	Δ_{25}
	2.0	〃 2.0 〃 — B YP		BYP										—	Δ_{11}	Δ_{14}
	2.0	〃 2.0 〃 — O N-2		ON-2										—	Δ_{20}	Δ_{42}
	4.8	〃 2.0 65L 2.8 O N-1		ON-1										—	Δ_{26}	Δ_{42}
	2.0	〃 2.0 PCM — L KB		LKB										—	Δ_{13}	Δ_{13}
	5.0	〃 2.0 P Y 65L 3.0 A SD	T3	ASD				Δ_{17}	Δ_{55}	Δ_{64}						
	7.9	〃 2.0 65NL5.9		ASD				—	—	$\times_{10}$						
PTN	2.0	PCM 2.0 L S PCM — P KN	T6	PKN										—	Δ_{18}	Δ_{32}
PK	2.0	PCM 2.0 L S PCM — P KN	T6	PKN										—	Δ_{26}	Δ_{37}
	8.1	9L 3.1 L S PCM 2.0 P Y 65L 3.0 A SD	T3	ASD				—	—	$\times_{10}$						
SDM	4.5	9L 2.5 L S PCM 2.0 P KN	T6	PKN										—	Δ_{42}	Δ_{52}
	9.3	65L 4.3 L S PCM 2.0 P Y 65L 3.0 A SD	T3	ASD				—	—	$\times_{12}$						
BCH	2.0	PCM 2.0 L S PCM — P KN	T6	PKN										—	Δ_{43}	Δ_{58}
	7.9	PCM 2.0 L S PCM — P Y 65NL5.9 A SD	T3	ASD		—	—	$\times_{12}$								
RID	4.7	9L 2.7 L S PCM 2.0 P KN	T6	PKN										—	Δ_{41}	Δ_{62}
	8.7	9L 2.7 〃 2.0 5L 4.0 O N-1		ON-1										—	—	$\times_{10}$
	7.7	9L 2.7 L S PCM 2.0 P Y 65L 3.0 A SD	T3	ASD		—	—	$\times_{10}$								
RS	2.0	PCM 2.0 L S PCM — P KN	T6	PKN										—	Δ_{27}	Δ_{52}
DM	4.0	PCM 2.0 P Y PCM 2.0 P KN	T6	PKN										Δ_{38}	Δ_{45}	Δ_{48}
	7.5	9L 2.5 〃 2.0 P Y 65L 3.0 A SD	T3	ASD		—	$\times_{10}$	$\times_{25}$								
NWW	5.9	9L 1.6 N W 9L 2.3 P Y PCM 2.0 P KN	T6	PKN										Δ_{27}	Δ_{34}	Δ_{37}
	9.8	9L 1.6 9L 2.3 65NL5.9 A SD	T3	ASD		—	$\times_{12}$	$\times_{29}$								
BK	4.4	9L 2.4 P Y PCM 2.0 P KN	T6	PKN										Δ_{50}	Δ_{33}	Δ_{49}
	8.9	9L 2.4 65L 2.6 A SD 65L 3.9 C P		CP							$\times_{20}$	—	—			
	8.3	9L 2.4 65NL5.9 A SD	T3	ASD		$\times_{11}$	$\times_{17}$	$\times_{25}$								

T2, T4 → PY → T3, T6, SP

NO. (1/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T3 CABLE 76	T3 CABLE 80	T3 CABLE 90	T3 PCM 76	T3 PCM 80	T3 PCM 90	T6, SP CABLE 76	T6, SP CABLE 80	T6, SP CABLE 90	T6, SP PCM 76	T6, SP PCM 80	T6, SP PCM 90
PY	4.0	9NL 4.0 P	L				T3	PL	△64	△54	△41									
	5.8	9NL 5.8						PL	△62	△56	△80									
	5.8	9NL 5.8						PL	×156	×89	×156									
	4.0	9L 1.5	65L 2.5 M	M				MM	△48	△46	△44									
	11.1	·65NL5.8	65NL5.3					MM	×28	×10	×32									
	5.8	65L 2.8	5L 3.0 S	KV				SKV	—	△37	△49									
	10.6	65NL5.3	5NL 5.3					SKV	—	×77	×86									
	5.8	65NL5.8 P	L					PL	×12	×18	×35									
		65NL						PL	4	7	15									
	5.8	9L 1.5 P	L 65L 4.3 H	M			T6	HM							△47	△31	△35			
	10.3	65NL5.8	65L 4.5					HM							×26	×32	×67			
	4.4	9L 1.5 P	L 9L 1.2 M	M 9L 1.7 S	P		T7	SP							△23	△26	△41	(T7)		
NN	5.0	9L 3.5 P	Y 9L 1.5 P	L			T3	PL	△24	△40	△27									
	10.4	9L 2.4 B	Sb 65L 2.2 P	Y 65NL5.8 P	L			PL	—	—	×30									
	10.0	9L 2.4	65L 2.0	65L 2.6	5L 3.0 S	KV		SKV	—	—	×10									
	10.4	9L 2.4	65L 2.2	65NL5.8 P	L			PL	×1	×3	×9									
BS	4.6	9L 1.1 B	Sb 65L 2.0 P	Y 9L 1.5 P	L		T3	PL	△29	△27	△34									
	9.1	9L 1.1	65L 2.2	65NL5.8				PL	×72	×60	×156									
	8.4	9L 1.1	65L 2.0	65L 2.6	65L 2.7 M	M		MM	—	—	×33									
	7.7	9L 1.1	·65L 2.0	65L 2.6	·65L 2.0 S	KV		SKV	—	×41	×88									
	9.1	9L 1.1	65L 2.2	65NL5.8 P	L			PL	×3	×5	×10									
	9.1	9L 1.1 B	Sb 9L 1.1 P	Y 65L 2.6 P	L 65L 4.3 H	M	T6	HM							—	×22	×54			
LP-2	5.7	9L 1.5 L	Pd 65L 2.7 P	Y 9L 1.5 P	L		T3	PL	△18	△42	△26									
	10.2	9L 1.5	65L 2.9	·65NL5.8				PL	—	×22	×64									
	8.8	·9L 1.5	65L 2.7	65L 2.6	·65L 2.0 S	KV		SKV	—	×18	×38									
	10.2	9L 1.5	·65L 2.9	65NL5.8 P	L			PL	×1	×3	×9									
LP-1	4.4	65L 2.9 P	Y 9L 1.5 P	L			T3	PL	△26	△25	△38									
	10.0	65NL6.0	9NL 4.0					PL	×42	×72	×158									
	11.0	65L 2.9	65L 2.8	65NL5.3 M	M			MM	—	×12	×43									
	11.0	65L 2.9	·65L 2.8	·5NL 5.3 S	KV			SKV	—	×48	×88									
	10.0	·65NL6.0	9NL 4.0 P	L				PL	×1	×3	×9									
IM	5.7	·65NL4.0 P	Y 9L 1.7 P	L			T3	PL	△27	△22	△24									
	10.9	5NL 5.1	65NL5.8					PL	×28	×64	×120									
	10.6	·5NL 5.1	65L 2.8	65L 2.7 M	M			MM	—	×12	×38									
	10.9	5NL 5.1	65L 2.8	5L 3.0 S	KV			SKV	—	×43	×68									
	10.9	5NL 5.1	·65NL5.8 P	L				PL	×1	×3	×9									
	8.9	65L 2.0 P	Y 65L 2.6 P	L 65L 4.3 H	M		T6	HM							—	×33	×62			
LS	2.0	PCM 2.0 P	L				T3	PL				△19	△31	△54						
	2.0	〃 2.0						PL				△54	△80	△128						
	4.7	〃 2.0	65L 2.7 M	M				MM				△24	△25	△46						
	5.2	〃 2.0	5L 3.2 S	KV				SKV				—	△50	△53						
	9.4	9L 3.6 P	Y 65NL5.8 P	L				PL	×1	×3	×9									
	5.5	PCM 2.0 P	L 65L 3.5 C	P			T6	CP										△38	△62	△76
	4.5	〃 2.0	·9L 2.5 H	M				HM										△16	△44	△44
	5.1	PCM 2.0 P	L 9L 1.4 M	M 9L 1.7 S	P		T7	SP										△10	△12	△19 (T7)

T2, T4 —— PY ——→ T3, T6 SP

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T3 CABLE 76	T3 CABLE 80	T3 CABLE 90	T3 PCM 76	T3 PCM 80	T3 PCM 90	T6 CABLE 76	T6 CABLE 80	T6 CABLE 90	T6 PCM 76	T6 PCM 80	T6 PCM 90
PTN	2.0	PCM 2.0 L	S PCM — P L				T3	PL	—	x3	x9	—	Δ21	Δ43						
	23.10	9L 7.6	9L 3.2 P	Y 9L 1.5 P L				PL												
PK	2.0	PCM 2.0 L	S PCM — P L				T3	PL	—	x3	x9	—	Δ31	Δ41						
	7.6	9L 2.9	9L 3.2 P	Y 9L 1.5 P L				PL												
SDM	4.5	9L 2.5 L	S PCM 2.0 P L				T3	PL	—	x3	x9	—	Δ41	Δ20						
	8.2	6.5NL 6.2	〃 2.0					PL				—	—	x22						
	9.5	6.5L 4.3	〃 2.0	5L 3.2 S KV				SKV				—	—	x10						
	10.1	6.5L 4.1	9L 3.2 P	Y 6.5L 2.8 P L				PL												
BCH	2.0	PCM 2.0 L	S PCM — P L				T3	PL	—	x3	x9	—	Δ21	Δ35						
	7.3	〃 2.0	〃 —	5NL 5.3 S KV				SKV				—	—	x12						
	10.7	9L 4.7	9L 3.2 P	Y 6.5L 2.8 P L				PL												
RID	4.7	9L 2.7 L	S PCM 2.0 P L				T3	PL	—	x2	x9	—	Δ20	Δ37						
	7.9	9L 2.7	PCM 2.0	5L 3.2 S KV				SKV				—	—	x11						
	8.7	9L 2.7	9L 3.2 P	Y 6.5L 2.8 P L				PL												
	7.2	9L 2.7 L	S PCM 2.0 P L	9L 2.5 H M			T6	HM										—	—	x25
RS	2.0	PCM 2.0 L	S PCM — P L				T3	PL	—	x2	x9	—	Δ27	Δ56						
	9.9	9L 5.2	9L 3.2 P	Y 9L 1.5 P L				PL												
DM	2.0	PCM 2.0 L	S PCM — P L				T3	PL				Δ30	Δ36	Δ22						
	9.7	9L 2.3	9L 3.4 P	Y 9NL 4.0 P L				PL	—	—	x28									
	7.7	9L 2.5	PCM 2.0	5L 3.2 S KV				SKV				—	—	x25						
	8.3	9L 2.3	9L 3.2 P	Y 6.5L 2.8 P L				PL	x2	x3	x5									
	8.2	9L 2.3	9L 3.2	9L 1.3	9L 1.4 M M			MM	x2	x4	x6									
	11.0	9L 2.5	PCM 2.0 P L	9NL 6.5 H M			T6	HM										—	—	x21
NWW	5.2	9L 1.6 N	W.b 9L 2.1 P	Y 9L 1.5 P L			T3	PL	Δ35	Δ40	Δ51									
	9.7	9L 1.6	9L 2.3	6.5NL 5.8				PL	—	—	x20									
	9.3	9L 1.6	9L 2.1	6.5L 2.6	5L 3.0 S KV			SKV	—	x10	x13									
	9.7	9L 1.6	9L 2.3	6.5NL 5.8 P L				PL	x2	x3	x5									
BK	5.2	9L 2.4 P	Y 6.5L 2.8 P L				T3	PL	Δ37	Δ29	Δ47									
	8.4	9L 2.6	6.5NL 5.8					PL	x40	x20	x34									
	10.5	9L 2.4	6.5L 2.8	5NL 5.3 S KV				SKV	—	x16	x23									
	8.4	9L 2.6	6.5NL 5.8 P L					PL	x2	x3	x5									
	10.9	9L 2.4 P	K.N PCM 2.0 P	Y 9NL 6.5 H M			T6	HM										x10	—	x14

PL ⟶ TI 方(PTW)

NO (1/1)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		TI CABLE 76	TI CABLE 80	TI CABLE 90	TI PCM 76	TI PCM 80	TI PCM 90	TI (PTW) CABLE 76	TI (PTW) CABLE 80	TI (PTW) CABLE 90	TI (PTW) PCM 76	TI (PTW) PCM 80	TI (PTW) PCM 90
PL	3.7	5L 3.7 K K					TI	KK	△76	△74	△98									
	4.8	65NL 4.8						KK	△48	△54	△56									
	3.7	5L 3.7						KK	×344	×256	×296									
	3.7	5L 3.7						KK TOLL	·114	·122	·218									
	4.8	65NL 4.8							×118	×126	×224									
		5NL						KK TEST	40	44	88									
		·						KK OBS	4	4	4									
	5.3	5L 5.3 S R						SR	△75	△90	△114									
	9.2	5NL 9.2						SR	×462	×408	×720									
	5.0	65L 2.3 K K	·65L 2.7 B P					BP	△19	△53	△27									
	10.4	5NL 6.2	·5L 4.2					BP	×48	×20	×80									
	4.9	65L 2.3	5L 2.6 S S					SS	△33	△23	△31									
	9.2	65NL 4.8	·5NL 4.4					SS	×24	×56	×144									
	2.9	5NL 2.9 P TW						PTW							△21	△39	△53			
	2.9	5NL 2.9						PTW							×90	×278	×564			
	6.2	5NL 6.2 K K						KK	×100	×180	×190									
		5NL						KK	25	30	30									
	9.2	5NL 9.2 S R						SP	×2	×3	×5									
		5NL						SR	27	42	55									
	10.4	5NL 6.2 K K	5L 4.2 B P					BP	×1	×3	×9									
	10.6	5NL 6.2	·5NL 4.4 S S					SS	×3	×5	×10									
	2.9	5NL 2.9 P TW						PTW							×1	×3	×9			
							SUB TOTAL	4db	114	122	218									
								6db	251	294	326				21	39	53			
								11db	1102	1057	1680				91	281	573			
								NL	96	120	177									
							GRAND TOTAL		1563	1593	2401				112	320	626			

PL ——— T5 T7

NO (1/1)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T5 CABLE 76	T5 CABLE 80	T5 CABLE 90	T5 PCM 76	T5 PCM 80	T5 PCM 90	T7 CABLE 76	T7 CABLE 80	T7 CABLE 90	T7 PCM 76	T7 PCM 90
PL	51	65L 20 (3) W	65L 31 T H				T5	TH	△88	△100	△114								
	51	〃 20	〃 31					TH	△30	△34	△43								
	100	5NL 53	5L 47					TH	×124	×102	×184								
	60	9L 11	65L 29	PCM 20 P D				PD	△23	△33	△53								
	51	9L 11	〃 29	9L 11 B C				BC	△33	△40	△23								
	88	5L 30	65L 29	5L 29				BC	—	—	×54								
	52	65L 20	65L 29	9L 13 D K				DK	△35	△42	△27								
	110	5L 30	5L 47	9L 33				DK	—	—	×48								
	60	9L 11	65L 29	PCM 20 N K				NK	—	△18	△25								
	61	〃 11	9L 17	9L 09 B C	65L 24 P S R			PSR	△16	△40	△36								
	92	5L 30	65L 29	〃 09	〃 24			PSR	—	—	×20								
	67(60)	9L 11	9L 17	〃 11 D K	〃 28 B K T			BKT	—	△33	△64								
	66(60)	〃 11	〃 17	5L 38 C H W				CHW	△21	△25	△30								
	87	65L 20	65L 29 (121)	〃 38				CHW	×22	×28	×98								
	60	9L 11	65L 29	PCM 20 M S K				MSK	—	△25	△33								
	48	〃 11	9L 17	〃 20 P P J				PPJ	—	△18	△33								
	100	5NL 53	5L 47					TH	×12	×23	×30								
	97	5L 30	5L 47	PCM 20 P D				PD	×2	×3	×5								
	104	5L 30	5L 45	5L 29 D C				BC	×2	×3	×5								
	110	5L 30	5L 47	9NL 33 D K				DK	×2	×3	×5								
	108	65L 20	5L 45	9L 43 N K				NK	—	×2	×9								
	108	5L 30	5L 45	9L 09 B C	65L 24 P S R			PSR	×1	×3	×9								
	104	65L 20	5L 45	9L 11 D K	65L 28 B K T			BKT	—	×3	×9								
	103	65L 20	5L 45	5L 38 C H W				CHW	×1	×3	×9								
	109	5L 30	5L 45	9L 34 M S K				MSK	—	×2	×9								
	101	65L 20	65L 27	9L 54 P P J				PPJ	—	×2	×9								
	53	5NL 53 (3) W					T7	SW							△82	△72	△82		
	53	5NL 53						SW							△102	△123	△153		
	53	5NL 53						SW							×822	×654	×1125		
	53	5NL 53						SWSPS							×20	×22	×36		
	46	5L 30	9L 16 T K					TK							△17	△38	△20		
	99	5NL 53	5L 46					TK							—	×20	×60		
	51	65L 20	5L 31 T C					TC							△24	△20	△26		
	104	5NL 53	5NL 51					TC							×22	×64	×106		
	53	5NL 53						SW							×27	×27	×46		
		5NL						SW							107	107	184		
	95	5NL 53	5L 42 T K					TK							×3	×5	×10		
	104	5NL 53	5NL 51 T C					TC							×1	×3	×9		
							SUB TOTAL	4db											
								6db	246	408	481				225	253	281		
								11db	166	177	503				895	795	1392		
								NL							107	107	184		
							GRAND TOTAL		412	585	984				1227	1155	1857		

CP KC
MM SKV
ASD
PL
T5 T7

NO (1/1)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T5 CABLE 76	T5 CABLE 80	T5 CABLE 90	T5 PCM 76	T5 PCM 80	T5 PCM 90	T7 CABLE 76	T7 CABLE 80	T7 CABLE 90	T7 PCM 76	T7 PCM 80	T7 PCM 90
CP	5.3	65L 3.3 PL	65L 2.0 SW				T7	SW							Δ76	Δ74	Δ86			
	8.1	5L 5.1	5L 3.0					SW							x390	x282	x312			
	7.7	65L 3.3	5L 2.8	9L 1.6 TK				TK							—	x20	x22			
	9.2	65L 3.3	5L 2.8	5L 3.1 TC				TC							x22	x36	x40			
	5.5	9L 2.2 PL	65L 1.8	9L 1.5 TH			T5	TH	Δ74	Δ78	Δ100									
	9.4	65L 4.4	65L 1.9	65L 3.1				TH	x88	x66	x78									
	8.6	5L 5.1 PL	5L 3.3				T7	SW							x4	x4	x6			
		5NL	5NL					SW							36	52	74			
KC	5.3	9L 1.9 HM	9L 2.3 PL	9L 1.1 SW			T7	SW							Δ48	Δ53	Δ39			
	8.6	65L 3.4	65L 4.1	9L 1.1				SW							x39	x36	x84			
	9.5	65L 3.4	65L 4.1	65L 2.0				SW							x1	x3	x9			
		65NL	65NL	65NL				SW							2	4	6			
	68(60)	9L 1.9 HM	9L 2.3 PL	9L 0.9 SW	9L 1.7 TH		T5	TH	Δ29	Δ40	Δ51									
	9.1	9L 1.9	9L 2.3 (2.0)	65L 1.8	65L 3.1			TH	x26	x25	x36									
	8.8	9L 1.9	9L 2.3	65L 1.8	9L 1.5 TH	9L 1.3 DK		DK	—	—	x11									
HM	4.5	9L 2.5 PL	65L 2.0 SW				T7	SW							Δ28	Δ36	Δ35			
	7.3	65L 4.3	5L 3.0					SW							x141	x186	x324			
	7.3	65L 4.3	5L 3.0					SW							x1	x3	x9			
	8.5	9L 2.3	65L 1.8	5L 4.4 TK				TK							—	—	x29			
	8.3	65L 4.3	9L 0.9	5L 3.1 TC				TC							—	x30	x50			
	9.7	65L 4.3	5L 3.7 MM	9L 1.7 SP				SP							—	—	x18			
	5.1	9L 2.5 PL	9L 0.9 SW	9L 1.7 TH			T5	TH	Δ31	Δ57	Δ67									
	8.3	65L 4.3	9L 0.9	65L 3.1				TH	x31	x42	x77									
	9.9	9L 2.5	9L 0.9	9L 1.5	5NL 5.0 BC			BC	—	—	x14									
	10.7	9L 2.5	65L 1.8	65L 3.1	9NL 3.3 DK			DK	—	—	x13									
	8.8	9L 2.5	9L 0.9	9L 1.5	65L 2.8 BKT			BKT	—	—	x10									
	8.6	9L 2.5	9L 0.9	9L 1.5	5L 3.7 CHW			CHW	—	—	x31									
SKV	6.0	5L 3.0 PL	5L 3.0 SW				T7	SW							—	Δ41	Δ50			
	10.6	5NL 5.3	5NL 5.3					SW							—	x432	x630			
	10.6	5NL 5.3	5NL 5.3					SWSPS							—	x15	x22			
	10.6	5NL 5.3	5NL 5.3					SW							—	x3	x9			
	8.2	65L 2.0	65L 1.8 SW	5L 4.4 TK				TK							—	x15	x32			
	8.9	5L 3.0	5L 2.8	5L 3.1 TC				TC							—	x42	x59			
	8.4	5L 3.0 PL	5L 3.7 MM	9L 1.7 SP				SP							—	x11	x18			
	6.0	65L 2.0 PL	9L 0.9 SW	65L 3.1 TH			T5	TH	—	Δ70	Δ61									
	8.5	65L 2.0	65L 1.8	5L 4.7				TH	—	x69	x104									
	8.0	65L 2.0	9L 0.9	65L 3.1	PCM 2.0 PD			PD	—	—	x10									
	8.7	65L 2.0	9L 0.9	65L 2.9	5L 2.9 BC			BC	—	—	x31									
	9.3	65L 2.0	9L 0.9	65L 3.1	9NL 3.3 DK			DK	—	—	x14									
	8.1	65L 2.0	9L 0.9	9L 1.5	5L 3.7 CHW			CHW	—	x12	x45									
ASD	5.5	5L 3.5 PL	65L 2.0 SW				T7	SW							Δ32	Δ43	Δ53			
	9.0	5L 3.7	5NL 5.3					SW							x177	x474	x708			
	9.0	5L 3.7	5NL 5.3					SWSPS							x6	x17	x25			
	9.0	5L 3.7	5NL 5.3					SW							x1	x3	x9			
	10.8	5L 3.5	5L 3.0	9NL 4.3 TK				TK							—	x17	x37			
	8.4	5L 3.5	65L 1.8	5L 3.1 TC				TC							—	x47	x68			
	8.8	5L 3.5	5L 3.6 MM	9L 1.7 SP				SP							—	x13	x22			
	6.1	5L 3.5	9L 0.9 SW	9L 1.7 TH			T5	TH	Δ26	Δ49	Δ46									
	9.4	3.5	5L 2.8	65L 3.1				TH	x28	x76	x117									
	9.5	3.5	9L 0.9	65L 3.1	PCM 2.0 PD			PD	—	—	x12									
	8.8	3.5	9L 0.9	9L 1.5	5L 2.9 BC			BC	—	x10	x35									
	10.8	3.5	9L 0.9	65L 3.1	9NL 3.3 DK			DK	—	x13	x33									
	8.5	65L 3.0 PY	PCM 2.0		TH 9L 1.1	BC 65L 2.4 PSR		PSR				—	—	x20						
	9.1	65L 3.0 PY	2.0		TH 9L 1.3	DK 65L 2.8		BKT				—	—	x11						
	8.9	65L 3.0 PY	2.0		TH 5L 3.9	CHW		CHW				—	x30	x60						

CP KC HM SKV ASD —— PL —— T1 T1 (PTW)

NO (1/1)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		T1 CABLE 76	T1 CABLE 80	T1 CABLE 90	T1 PCM 76	T1 PCM 80	T1 PCM 90	T1 (PTW) CABLE 76	T1 (PTW) CABLE 80	T1 (PTW) CABLE 90	T1 (PTW) PCM 76	T1 (PTW) PCM 80	T1 (PTW) PCM 90
CP	5.6	65L 3.3 PL 65L 2.3 KK	T1	KK	Δ94	Δ104	Δ94									
	3.5	9L 2.2 9L 1.3		KK TOLL	•114	•114	•136									
	8.6	5L 5.1 5L 3.5		KK	x68	x68	x80									
	8.6	5L 5.1 5L 3.5		KKTEST	x60	x76	x60									
		5NL 5NL		KKOBS	40	40	52									
		" "		SS	3	3	3									
	10.2	65L 3.3 PL 5L 3.5 KK 65NL3.4 SS		SR	—	—	x52									
	8.5	5L 5.1 65L 3.4 SR		BP	x390	x300	x354									
	9.8	5L 5.1 65L 2.1 KK 65L 2.6 BP			x32	x22	x30									
	8.2	5L 5.3 PL 5NL 2.9 PTW	T1	PTW							x32	x122	x156			
	8.6	5L 5.1 PL 5L 3.5 KK	T1	KK	x41	x80	x108									
	10.2	5L 5.1 5L 5.1 SR		SR	x2	x2	x4									
		5NL 5NL		SR	4	8	16									
KC	9.0	65L 3.4 HM 9L 2.1 PL 5L 3.5 KK	T1	KK	x48	x24	x22									
	9.0	65L 3.4 HM 9L 2.1 5L 3.5 KK		KKTOLL	x29	x36	x51									
		65NL 9NL 65NL		KKTEST	16	22	34									
		65NL 9NL 65NL		KKOBS	3	3	3									
	11.0	65L 3.4 65L 4.1 5L 3.5		KK	x1	x3	x9									
	9.3	9L 1.9 9L 2.3 5L 5.1 SR		SR	—	—	x33									
	10.2	9L 1.9 9L 2.3 5L 3.3 KK 65L 2.7 BP		BP	x22	x11	x36									
	10.1	9L 1.9 9L 2.3 5L 3.3 5L 2.6 SS		SS	—	x27	x56									
	8.6	65L 3.4 HM 9L 2.3 PL 5NL 2.9 PTW	T1	PTW							—	x48	x77			
HM	6.0	9L 2.5 PL 5L 3.5 KK	T1	KK	Δ41	Δ43	Δ53									
	10.7	65L 4.5 5L 6.2		KK	x50	x62	x72									
	3.8	9L 2.5 9L 1.3		KK TOLL	•29	•49	•87									
	10.7	65L 4.5 5NL 6.2		KK TOLL	x47	x84	x155									
		65NL 5NL		KKTEST	16	32	64									
		65NL 5NL		KKOBS	3	3	3									
	10.7	65L 4.5 5NL 6.2		KK	x1	x3	x9									
	7.7	65L 4.3 65L 3.4 SR		SR	x123	x183	x324									
	9.1	65L 4.3 65L 2.1 KK 65L 2.7 BP		BP	—	x10	x42									
	9.0	65L 4.3 65L 2.1 5L 2.6 SS		SS	—	x10	x48									
	7.2	65L 4.3 5NL 2.9 PTW	T1	PTW							—	x66	x135			
SKV	5.5	65L 2.0 PL 5L 3.5 KK	T1	KK	—	Δ52	Δ64									
	9.0	5NL 5.3 5L 3.7		KK	—	x174	x166									
	9.0	5NL 5.3 5L 3.7		KK TOLL	—	x53	x77									
	3.3	65L 2.0 9L 1.3		KK TOLL	—	•91	•138									
		5NL 5NL		KKTEST	—	36	56									
		" "		KKOBS	—	3	3									
	9.0	5NL 5.3 5L 3.7		KK	—	x3	x9									
	10.6	5NL 5.3 PL 5L 5.3 SR		SR	—	x267	x399									
	9.0	5L 3.0 PL 5L 3.3 KK 65L 2.7 BP		BP	—	x14	x43									
	10.9	5L 3.0 5L 3.5 5NL 4.4 SS		SS	—	x36	x80									
	8.2	·5NL 5.3 PL 5NL 2.9 PTW	T1	PTW							—	x191	x321			
ASD	5.8	5L 3.5 PL ·65L 2.3 KK	T1	KK	Δ36	Δ49	Δ60									
	9.9	·5NL 6.2 5L 3.7		KK	x20	x59	x89									
	58(10)	·5L 3.5 x 65L 2.3		TOLL	•33	•102	•159									
	9.9	·5NL 6.2 (3.3) 5L 3.7		KK	x78	x192	x192									
		·5NL ·5NL		KKTEST	10	40	66									
		" "		KKOBS	3	3	3									
	9.9	·5NL 6.2 ·5L 3.7		KK	x1	x3	x9									
	8.6	·5L 3.5 ·5L 5.1 SR		SR	x108	x306	x468									
	9.6	·5L 3.5 65L 2.1 KK 5L 4.0 BP		BP	—	x16	x50									
	9.2	·5L 3.5 ·65L 2.3 65NL3.4 SS		SS		43	96									
	9.1	·5NL 6.2 ·5NL 2.9 PTW		PTW							x14	x213	x369			

NO (1/1)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T 3 CABLE 76	T 3 CABLE 80	T 3 CABLE 90	T 3 PCM 76	T 3 PCM 80	T 3 PCM 90	ASD SKV HM KC CABLE 76	ASD SKV HM KC CABLE 80	ASD SKV HM KC CABLE 90	ASD SKV HM KC PCM 76	ASD SKV HM KC PCM 80	ASD SKV HM KC PCM 90
CP	5.3	5L 5.3 PL					T3	PL	$^{\Delta}48$	$^{\Delta}48$	$^{\Delta}56$									
	9.0	5NL 9.0						PL	$^{x}268$	$^{x}200$	$^{x}276$									
		5NL						PLTKE	1	1	1									
	8.9	5L 5.1 PL	5L 3.8 MM					MM	$^{x}148$	$^{x}98$	$^{x}146$									
	8.5	65NL 8.5 ASD						ASD							$^{x}62$	$^{x}42$	$^{x}72$			
	3.8	5NL 3.8 SKV						SKV							—	$^{x}40$	$^{x}64$			
		5NL						SKVTKE	1	1	1									
KC	4.4	9L 1.5 HM	9L 2.5 PL				T3	PL	$^{\Delta}35$	$^{\Delta}41$	$^{\Delta}26$									
	7.7	65L 3.4	65L 4.3					PL	$^{x}28$	$^{x}26$	$^{x}68$									
	7.7	65L 3.4	·65L 4.3					PL	$^{x}12$	$^{x}23$	$^{x}30$									
	8.9	·65L 3.4	65L 4.1	9L 1.4 MM				MM	—	—	$^{x}21$									
	7.6	65L 4.1	5L 3.5 SD					ASD							—	$^{x}23$	$^{x}45$			
	11.0	65L 3.4	65L 4.1 PL	5L 3.5 KV				SKV							—	$^{x}34$	$^{x}47$			
HM	2.7	9L 2.7 PL					T3	PL	$^{\Delta}28$	$^{\Delta}33$	$^{\Delta}49$									
	9.3	65NL 9.3						PL	$^{x}88$	$^{x}122$	$^{x}266$									
	9.3	65NL 9.3						PL	$^{x}1$	$^{x}3$	$^{x}9$									
	8.2	·65L 4.3	5L 3.9 MM					MM	$^{x}45$	$^{x}55$	$^{x}129$									
	7.8	65L 4.3	5L 3.5 SD					ASD							—	$^{x}81$	$^{x}157$			
	7.4	·65L 4.3	·5L 3.1 KV					SKV							$^{x}10$	$^{x}83$	$^{x}147$			
SKV	3.2	5L 3.2 PL					T3	PL	—	$^{\cdot}215$	$^{\cdot}254$									
	5.3	5NL 5.3						PL	—	$^{\Delta}29$	$^{\Delta}39$									
	5.3	5NL 5.3						PL	—	$^{x}140$	$^{x}252$									
		·5NL						PLMISC	—	5	5									
	5.3	5NL 5.3						PL	—	$^{x}3$	$^{x}9$									
	9.3	5NL 5.3	5L 4.0 MM					MM	—	$^{x}61$	$^{x}117$									
	9.0	5NL 5.3	·5L 3.7 SD					ASD							—	$^{x}90$	$^{x}138$			
	7.4	5L 3.1 PL	65L 4.3 HM				T6	HM							—	$^{x}81$	$^{x}147$			
	11.0	5L 3.5	65L 4.1	65L 3.4 KC				KC							—	$^{x}34$	$^{x}47$			
ASD	3.7	5L 3.7 PL					T3	PL	129	$^{\cdot}228$	$^{\cdot}222$									
	3.7	5L 3.7						PL	$^{\Delta}17$	$^{\Delta}30$	$^{\Delta}41$									
	6.2	·5NL 6.2						PL	$^{x}54$	$^{x}152$	$^{x}284$									
		5NL						PLMISC	6	6	6									
	6.2	·5NL 6.2						PL	$^{x}11$	$^{x}23$	$^{x}34$									
	10.2	·5NL 6.2 PL	5L 4.0 MM					MM	$^{x}21$	$^{x}68$	$^{x}133$									
		5L						SKV							—	$^{x}90$	$^{x}138$			
	7.8	5L 3.5 PL	·65L 4.3 HM				T6	HM							$^{x}10$	$^{x}83$	$^{x}157$			
	11.0	5L 3.5	·65L 4.1	65L 3.4 KC				KC							—	$^{x}23$	$^{x}45$			
SKV							T2		T 2						T 4					
	5.9	5L 3.0 PL	65L 2.8 PY					PY	—	$^{\Delta}37$	$^{\Delta}47$									
	10.6	5NL 5.3	65NL5.3					PY	—	$^{x}77$	$^{x}86$									
	7.7	65L 2.0	65L 2.6	65L 2.0 BSb	9L 1.7 BS			BS	—	$^{x}41$	$^{x}88$									
	10.9	5L 3.0	65L 2.8	5NL 5.1 IM				IM	—	$^{x}43$	$^{x}68$									
	8.8	65L 2.0	65L 2.6	65L 2.7 LPI	9L 1.5 LP2			LP2	—	$^{x}18$	$^{x}38$									
	11.0	5NL 5.3	65L 2.8	65L 2.5 PI				LPI	—	$^{x}48$	$^{x}88$									
	10.0	5L 3.0	65L 2.6	65L 2.0 BSb	9L 2.4 NN			NN	—	—	$^{x}10$									
	5.2	5L 3.2 PL	PCM 2.0 LS				T4	LS										—	$^{\Delta}50$	$^{\Delta}53$
	9.3	5L 3.0	·65L 2.6 PX	·9L 2.1 NWD	·9L 1.6 NWW			NWW							—	$^{x}10$	$^{x}13$			
	7.7	5L 3.2	PCM 2.0 LS	9L 2.5 DM				DM							—	—	$^{x}25$			
	10.5	5NL 5.3	65L 2.8 PY	9L 2.4 BK				BK							—	$^{x}16$	$^{x}23$			
	7.3	5NL 5.3	PCM 2.0 LS	PCM — BCH				BCH							—	—	$^{x}12$			
	7.9	·5L 3.2	PCM 2.0	9L 2.7 RID				RID							—	—	$^{x}11$			
	9.5	5L 3.2	+ 2.0	65L 4.3 SDM				SDM							—	—	$^{x}10$			

MM / SP ——— PL ——— T1.T1(PTW)

NO (1/1)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS						DESTINATION OFFICE		T1 CABLE 76	T1 CABLE 80	T1 CABLE 90	T1 PCM 76	T1 PCM 80	T1 PCM 90	T1 (PTW) CABLE 76	T1 (PTW) CABLE 80	T1 (PTW) CABLE 90	T1 (PTW) PCM 76	T1 (PTW) PCM 80	T1 (PTW) PCM 90
MM	6 0	65L 2.5 PL	5L 3.5 KK					T1	KK	Δ_{34}	Δ_{33}	Δ_{35}									
	3 7	·9L 1 4	·65L 2 3						KK TOLL	$\cdot_{57}$	$\cdot_{57}$	$\cdot_{107}$									
	10 2	·5L 4 0	·5NL 6 2							$\times_{34}$	$\times_{34}$	$\times_{61}$									
	10 2	·5L 4.0	·5NL 6 2						KK	$\times_{90}$	$\times_{58}$	$\times_{74}$									
		·5NL	5NL						KKTEST	20	20	42									
		"	"						KKOBS	3	3	3									
	10 2	5L 4.0	·5NL 6.2						KK	$\times_{13}$	$\times_{20}$	$\times_{40}$									
	8 5	65L 2.5	5L 3.3 SR	65L 2.7 BP					BP	$\times_{11}$	—	$\times_{29}$									
	10.6	·65NL 5 3	5L 5.3						SR	$\times_{162}$	$\times_{126}$	$\times_{237}$									
		65NL	5NL						SR	2	3	5									
	8 4	·65L 2.5	5L 3.3	·5L 2.6 SS					SS	—	—	$\times_{30}$									
	9.7	·5L 6.8	5NL 2.9 PTW					T1	PTW							$\times_{25}$	$\times_{66}$	$\times_{139}$			
SP	5 2	·9L 1.7 MM	9L 1.2 PL	·65L 2 3 KK				T1	KK	Δ_{39}	Δ_{44}	Δ_{33}									
	4 2	9L 1 7	9L 1 2	9L 1 3					KK TOLL	$\cdot_{22}$	$\cdot_{27}$	$\cdot_{45}$									
	10.4	9NL 44	·65L 2 5	·5L 3.5						$\times_{14}$	$\times_{17}$	$\times_{27}$									
	10.4	9NL 4.4	65L 2.5	·5L 2.5 KK					KK	$\times_{1}$	$\times_{3}$	$\times_{9}$									
		9NL	65NL	·5NL					KKTEST	6	8	16									
		"	"	"					KKOBS	3	3	3									
	9.1	9L 1.7	·65L 2.3	5L 5.1 SR					SR	—	—	$\times_{60}$									
	7 1	9L 1 7	65L 2 5	·5NL 2.9 PTW				T1	PTW							—	$\times_{10}$	$\times_{35}$			
								SUB TOTAL	4 db	79	84	152									
									6 db	73	77	68									
									11 db	325	258	567				25	76	174			
									NL	34	37	69									
								GRAND TOTAL		511	456	856				25	76	174			

MM, SP — PL — T3, T6

NO (1/1)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T3 CABLE 76	T3 CABLE 80	T3 CABLE 90	T3 PCM 76	T3 PCM 80	T3 PCM 90	T6 CABLE 76	T6 CABLE 80	T6 CABLE 90	T6 PCM 76	T6 PCM 80	T6 PCM 90
MM	2.7	65L 2.7 P L					T3	PL	*159	*174	*215									
	4.0	5L 4.0 P L						PL	△22	△21	△30									
	6.8	·5NL 6.8 P L						PL	x14	x82	x192									
	6.8	5NL 6.8 P L						PL	*15	*28	*40									
		·5NL						PL MISC	6	6	6									
		5NL						PL	5	7	45									
	10.2	5L 4.0 P L	5NL 6.2 A SD					ASD	x21	x68	x133									
	9.3	5L 4.0 P L	5NL 5.3 S KV					SKV	—	x61	x117									
	5.8	·9L 1.4 P L	65L 4.4 P KN				T6	PKN							△57	△86	△100			
	8.2	5L 3.8	65L 4.4 P KN					PKN							x16	x23	x46			
	8.9	5L 3.8	5L 5.1 C P					CP							x146	x98	x146			
	8.9	·65L 2.5	·65L 4.2 P KN	65L 2.2 B N				BN							x28	x11	x34			
	9.0	·65L 2.5	65L 4.2	·9L 1.1	·9L 1.2 P S			PS							—	—	x27			
	8.9	65L 2.5	·65L 4.4	PCM	2.0 S MP			SMP							—	—	x12			
	8.2	·5L 3.9	·65L 4.3 H M					HM							x45	x55	x129			
	8.9	·9L 1.4	65L 4.1	65L 3.4 K C				KC							—	—	x21			
	8.2	9L 1.4	65L 4.2 P KN	65L 2.6 O N-1				ON-1							—	x17	x73			
	9.0	·9L 1.4	65L 4.2	·9L 3.4 O N-2				ON-2							—	x12	x47			
SP	5.5	9L 1.7 M M	5L 3.6 P L				T3	PL	△26	△34	△33									
	9.7	9NL 4.4	65NL 5.3					PL	x11	x23	x34									
	9.7	9NL 4.4 M M	65NL 5.3 P L					PL	—	—	x50									
	4.4	·9NL 4.4 M M						MM	x20	x18	x50									
		·9NL						MM TKE	1	1	1									
	8.8	·9L 1.7 M M	5L 3.6 P L	5L 3.5 A SD				ASD	—	x13	x22									
	8.4	9L 1.7 M M	5L 3.7	·5L 3.0 S KV				SKV	—	x11	x18									
	5.2	9L 1.6 M M	9L 1.2 P L	9L 2.4 P KN			T6	PKN							△27	△32	△50			
	10.9	9NL 4.2	65L 2.3	65L 4.4 P KN				PKN							—	—	x12			
	9.7	9L 1.7 M M	5L 3.7	65L 4.3 H M				HM							—	—	x18			
							SUB TOTAL	4 db	159	174	215									
								6 db	48	55	63				84	118	150			
								11 db	181	304	656				235	216	565			
								NL	12	14	52									
							GRAND TOTAL		400	547	986				319	334	715			

MM / SP —— PL ——→ T5,T7

NO (1/1)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T5 CABLE 76	T5 CABLE 80	T5 CABLE 90	T5 PCM 76	T5 PCM 80	T5 PCM 90	T7 CABLE 76	T7 CABLE 80	T7 CABLE 90	T7 PCM 76	T7 PCM 80	T7 PCM 90
MM	5.7	5L 2.6 SW	65L 31 TH				T5	TH	△34	△35	△56									
	9.4	5NL 4.5	5L 4.9					TH	×38	×27	×52									
	10.0	·5NL 4.5	9L 1.7	·5L 3.8 CHW				CHW	—	—	×19									
	10.6	5L 2.6	5L 4.9	·9NL 3.3 DK				DK	—	—	×26									
	4.5	5NL 4.5 SW					T7	SW							△31	△23	△34			
	4.5	• 4.5						SW							×267	×192	×348			
	4.5	• 4.5						SWSPS							×10	×10	×18			
	4.5	• 4.5						SW							×4	×4	×6			
		5NL						SW							60	60	91			
	8.8	• 4.5	9NL 4.3 TK					TK							×10	×23	×41			
	9.6	• 4.5	5NL 5.1 TC					TC							×26	×42	×74			
SP	5.8	9L 1.7 MM	5L 2.4 SW	9L 1.7 TH			T5	TH	△19	△22	△35									
	4.3(4.0)	9L 1.7 MM	5L 2.6 SW				T7	SW							•140	•157	•179			
	4.3	9L 1.7	·5L 2.6 (4.0)					•							△30	△34	△18			
	8.9	• 4.4	5NL 4.5					SW							—	—	×60			
	8.9	• 4.4	5NL 4.5					SWSPS							×5	×6	×8			
		•	•					SWMISC							5	5	5			
	9.4	9L 1.7 MM	5L 2.6 SW	5NL 5.1 TC				TC							—	×11	×27			
	8.9	9NL 4.4	5NL 4.5 SW					SW							×1	×3	×9			
	8.9	9NL 4.4	5NL 4.5					SW							5	5	16			
							SUB	4db							140	157	179			
								6db	53	57	91				61	57	52			
							TOTAL	11db	38	27	97				323	291	591			
								N.L.							70	70	112			
							GRAND TOTAL		91	84	188				594	575	934			

MM / SP —— PL —— T2 T4

NO (1/1)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS						DESTINATION OFFICE		T2 CABLE 76	T2 CABLE 80	T2 CABLE 90	T2 PCM 76	T2 PCM 80	T2 PCM 90	T4 CABLE 76	T4 CABLE 80	T4 CABLE 90	T4 PCM 76	T4 PCM 80	T4 PCM 90
MM	4.0	65L 2.5 PL	9L 1.5 PY					T2	PY	△48	△46	△44									
	11.1	65NL 5.3	65NLS 8 PY						PY	x28	x10	x32									
	8.4	65L 2.7	65L 2.6	·65L 2.0 BSD	·9L 1.1 BS				BS			x33									
	10.6	65L 2.7	65L 2.8	·65NL 5.1 IM					IM	—	x12	x28									
	11.0	65NL 5.3	·65L 2.8	·65L 2.9 LPI					LP-I	—	x12	x43									
	4.7	65L 2.7 PL	PCM 2.0 LS					T4	LS										△24	△25	△46
	8.2	9L 1.4 PL	9L 1.3 PY	·9L 3.2 LS	·9L 2.3 DM				DM							x2	x4	x6			
SP	4.4	9L 1.7 MM	9L 1.2 PL	9L 1.5 PY				T2	PY	△23	△26	△41									
	5.1	9L 1.5 MM	9L 1.4	PCM 2.0 LS				T4	LS							△10	△12	△19			
								SUB TOTAL	4 db												
									6 db	71	72	85				34	37	65	24	25	45
									11 db	28	34	146				2	4	6			
									N.L												
								GRAND TOTAL		99	106	231				36	41	71	24	25	46

T4 —— LS —— T1 T2

NO (1/3)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T1 CABLE 76	T1 CABLE 80	T1 CABLE 90	T1 PCM 76	T1 PCM 80	T1 PCM 90	T2 CABLE 76	T2 CABLE 80	T2 CABLE 90	T2 PCM 76	T2 PCM 80	T2 PCM 90
	2.0	PCM2.0 K K						KK				$^{\Delta}30$	$^{\Delta}44$	$^{\Delta}54$						
	2.0	" 2.0						KK				$^{\Delta}42$	$^{\Delta}86$	$^{\Delta}92$						
	8.2	9L 3.4 P Y	5L 4.8 K K					"	$^{x}11$	$^{x}23$	$^{x}34$									
	2.0	PCM2.0 K K						KK TOLL				$^{\cdot}17$	$^{\cdot}25$	$^{\cdot}47$						
	6.6	·9L 3.4 P Y	65L 3.2 K K						$^{x}12$	$^{x}17$	$^{x}30$									
		·9NL	65NL					KKTEST	4	8	16									
		"	"					KKOBS	3	3	3									
	5.6	PCM 2.0 K K	5NL 3.6 S R				T1	SR				$^{\Delta}51$	$^{\Delta}105$	$^{\Delta}159$						
	4.9	" 2.0	·65L 2.9 B P					BP				$^{\Delta}22$	$^{\Delta}33$	$^{\Delta}48$						
	5.2	" 2.0 K K	5L 3.2 P TW					PTW				$^{\Delta}22$	$^{\Delta}66$	$^{\Delta}76$						
	7.1	" 2.0	5NL 5.1					"				—	—	$^{x}20$						
	5.4	" 2.0	65NL3.4 S S					SS				$^{\Delta}13$	$^{\Delta}44$	$^{\Delta}66$						
	6.4	2.0	5NL 4.4					"				—	—	$^{x}16$						
LS																				
	2.0	PCM 2.0 P Y						PY										$^{\Delta}29$	$^{\Delta}34$	$^{\Delta}31$
	2.0	PCM 2.0						PY										$^{\Delta}59$	$^{\Delta}76$	$^{\Delta}87$
	10.1	·9NL 9.7						"							$^{x}10$	$^{x}11$	$^{x}26$			
	10.5	·9L 3.6	·65NL4.6 B Sb	9NL 2.3 B S				BS							—	—	$^{x}16$			
	5.3	PCM 2.0	65L 2.2	9L 1.1				"										$^{\Delta}20$	$^{\Delta}43$	$^{\Delta}72$
	8.7	·9L 3.6	5NL 5.1 I M					IM							—	—	$^{x}16$			
	6.0	PCM 2.0	65NL4.0				T2	"										$^{\Delta}24$	$^{\Delta}53$	$^{\Delta}50$
	9.6	9L 3.6	65NL6.0 L PI					LP-I							—	$^{x}11$	$^{x}25$			
	5.1	PCM 2.0	65L 3.1					"										$^{\Delta}14$	$^{\Delta}47$	$^{\Delta}55$
	4.9	" 2.0	·9L 1.4	9L 1.5 L P2				LP-2										$^{\Delta}14$	$^{\Delta}35$	$^{\Delta}40$
	9.6	·9L 3.6	65NL6.0 L PI					LP-ISPS							$^{x}6$	$^{x}12$	$^{x}19$			
	10.2	9L 3.4	65L 2.9	·9NL 3.9 L P2				LP-2SPS							$^{x}5$	$^{x}10$	$^{x}14$			
	5.7	PCM 2.0	9L 1.3 B Sb	9L 2.4 N N				NN										$^{\Delta}13$	$^{\Delta}20$	$^{\Delta}34$
	7.8	·9L 3.4	65L 2.0	9L 2.4				NNSPS							$^{x}5$	$^{x}6$	$^{x}10$			
	10.5	·9L 3.6	65NL4.6	9NL 2.3 B S				BSSPS							$^{x}10$	$^{x}12$	$^{x}22$			
	2.0	PCM 2.0 P Y						KK				—	$^{\Delta}31$	$^{\Delta}52$						
	25/110	·9L 7.6 L S	9L 3.2 (b)	9L 1.7 K K				1 KK	$^{x}10$	$^{x}22$	$^{x}34$									
	8.7	PCM 2.0 P Y	65NL6.7 K K					KK TOLL				$^{x}7$	$^{x}11$	$^{x}20$						
	3.9	" 2.0 P Y	·9L 1.9 K K									$^{\cdot}9$	$^{\cdot}17$	$^{\cdot}33$						
		9NL L S	9NL P Y	65NL K K			T1	KKTEST	2	4	10									
		"	"	65NL K K				KKOBS	—	3	3									
	7.1	PCM 2.0 L S	PCM — P Y	·5NL 5.1 P TW				PTW				—	—	$^{x}13$						
PTN	6.4	" 2.0 L S	" — P Y	K K 5NL 4.4 S S				SS				—	—	$^{x}26$						
	2.0	PCM 2.0 P Y						PY										$^{\nabla}100$	$^{\Delta}28$	$^{\Delta}42$
		·9NL	·9NL					PYALSND							1	—	—			
		·9NL	9NL					PY TKE							—	1	1			
	9.1	·9L 4.7 P K	9L 4.4 B S				T2	BS							—	—	$^{x}30$			
	8.3	PCM 2.0 L S	9L 3.4 P Y	65L 2.9 L PI				LP-I							—	—	$^{x}10$			
	8.1	9L 4.7 P K	·9L 3.4 N N					NN							—	$^{x}21$	$^{x}50$			
	2.0	PCM 2.0 L S	PCM — K K					KK				—	$^{\Delta}48$	$^{\Delta}59$						
	7.8	9L 2.9	9L 3.2 P Y	9L 1.7 K K				KK	—	$^{x}3$	$^{x}9$									
	7.8	·9L 2.9	9L 3.2	9L 1.7 K K				KK TOLL	—	$^{x}16$	$^{x}23$									
	2.0	PCM 2.0	PCM — K K									—	$^{\cdot}25$	$^{\cdot}38$						
		9NL	9NL P Y	9NL			T1	KKTEST	—	8	12									
PK		"	"	"				KKOBS	—	3	3									
	7.1	PCM 2.0	PCM — K K	·5NL 5.1 P TW				PTW				—	$^{x}10$	$^{x}16$						
	6.4	PCM 2.0	PCM — K K	·5NL 4.4 S S				SS				—	—	$^{x}34$						
	2.0	PCM 2.0 L S	PCM — P Y					PY										—	$^{\Delta}30$	$^{\Delta}43$
	9.1	9L 2.9	9L 3.2 P Y	·65L 2.9 L PI			T2	LP1							—	—	$^{x}13$			

LS

T4 ——|——→ T1, T2

NO (2/3)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T1 CABLE 76	T1 CABLE 80	T1 CABLE 90	T1 PCM 76	T1 PCM 80	T1 PCM 90	T2 CABLE 76	T2 CABLE 80	T2 CABLE 90	T2 PCM 76	T2 PCM 80	T2 PCM 90
SDM	45	9L 25 L S	PCM 20 K	K			T1	KK				—	△45	△45						
	106	65L 42	9L 32 P	Y 65L 32 K	K			KK	—	× 3	× 9									
	72(40)	9L 23	9L 32	9L 17				KK TOLL	—	• 25	• 33									
	105	9L 41	9L 32	65L 32					—	× 16	× 20									
		65NL	9NL	65NL				KK TEST	—	8	10									
		〃	〃	〃				KK OBS	—	3	3									
	95	65L 43	PCM 20 K	K 5L 32 P	TW			PTW				—	× 15	× 21						
	107	65L 43	〃 20	5NL 44 S	S			SS				—		× 12						
	64(60)	65L 44 L S	PCM 20 P	Y			T2	PY										—	△50	△45
	105	65L 42 L S	9L 32 P	Y 65L 20 B	Sb 9L 11 B	S		BS							—	—	× 10			
	103	65L 42 L S	9L 32 P	Y 65L 29 L	P-1			LR-1							—	—	× 12			
BCH	20	PCM 20 L S	PCM — K	K			T1	KK				—	△43	△49						
	96	9L 47	9L 32 P	Y 9L 17 K	K			KK	—	× 3	× 9									
	96	9L 47	9L 32	9L 17 K	K			KK TOLL	× 7	× 16	× 25									
		9NL	9NL	9NL				KK TEST	5	8	14									
								KK OBS	—	3	3									
	101	9L 47	PCM — K	K 5L 32 P	TW			PTW				—	—	× 21						
	103	9L 49	〃 20 K	K 65NL 34 S	S			SS				—	—	× 15						
RID	106	9L 25 L S	9NL 47 K	K			T1	KK	—	× 2	× 9									
	47	9L 27	PCM 20					KK				—	△41	△39						
	74(40)	9L 25	9L 32 P	Y 9L 17 K	K			KK TOLL	• 9	• 24	• 42									
	106	9L 25	9L 34 P	Y (S) 9NL 47					× 7	× 15	× 26									
		9NL	9NL P	Y 9NL				KK TEST	2	8	14									
		〃	〃	〃				KK OBS	—	3	3									
	103	9L 27	PCM 20	65NL 5.6 B	P			BP				—	—	× 11						
	98	9L 27	〃 20 K	K 5L 51 P	TW			PTW				—	—	× 29						
	91	9L 27	〃 20 P	Y 5NL 44 S	S			SS				—	—	× 16						
	59(30)	9L 25 L S	9L 34 P	Y			T2	PY							▽83	△39	△30			
		65NL	9NL (B S)					PYALSND								—	—			
	111	65L 48 L S	9L 32 P	Y 65L 20 B	Sb 9L 11 B	S		BS							—	—	× 14			
	110	65L 48 L S	9L 32 P	Y 5L 30 I M				IM							—	—	× 26			
	109	65L 48 L S	9L 32 P	Y 9L 14 L	P-1 9L 15 L	P-2		LP-2							—	—	× 23			
	109	65L 48 L S	9L 32 P	Y 65L 29 L	P-1			LP-1							—	—	× 22			
RS	20	PCM 20 L S	PCM — K	K			T1	KK				—	△37	△59						
	101	9L 52	9L 32 P	Y 9L 17 K	K			KK	—	× 2	× 9									
	20	PCM 20	PCM — K	K				KK TOLL	× 7	× 11	× 20	• 9	• 17	• 33						
	101	9L 52	9L 32 P	Y 9L 17 K	K			KK TEST	5	4	10									
		9NL	9NL	9NL				KK OBS	—	3	3									
		〃	〃	〃				PTW				—	—	× 16						
	71	PCM 20	PCM — K	K 5NL 51 P	TW															
	20	PCM 20 L S	PCM — P	Y			T2	PY										▽104	△32	△55
		9NL L S	9NL P	Y				PX ALSNB							1	—	—			
	100	9L 52 L S	9L 32 P	Y 9L 16 L	P-1			LP-1							—	—	× 10			
DM	64	PCM 20 L S	PCM — K	K			T1	KK				△51	△49	△55						
	87	9L 23	9L 32 P	Y 65L 32 K	K			KK	× 25	× 50	× 65									
	20	PCM 20	PCM — K	K				KK TOLL	× 14	× 17	× 25	• 22	• 27	• 40						
	106	9L 23	9L 32 P	Y 65L 32 K	K			KK TEST	6	8	14									
		9NL	9NL	9NL				KK OBS	3	3	3									
		〃	〃	〃				PTW				—	× 16	× 42						
	96	9L 25	PCM 20 K	K 5NL 51 P	TW			SS				—	—	× 15						
	89	9L 25	〃 20 P	Y 5NL 44 S	S															
		9NL	9NL	5NL S	R			SR	3	5	10									

NO21

T4 ——LS——T1 T2

NO (3/3)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T1 CABLE 76	T1 CABLE 80	T1 CABLE 90	T1 PCM 76	T1 PCM 80	T1 PCM 90	T2 CABLE 76	T2 CABLE 80	T2 CABLE 90	T2 PCM 76	T2 PCM 80	T2 PCM 90
DM	2.0	PCM 2.0 LS	PCM — PY				T2	PY										$^{\Delta}53$	$^{\Delta}54$	$^{\Delta}46$
	8.6	9L 2.3	9L 3.2	65L 2.0 BS Sb	9L 1.1 BS			BS							—	—	$^{x}13$			
	8.5	9L 2.3	9L 3.2	5L 3.0 IM				IM							—	—	$^{x}10$			
	8.4	9L 2.3	9L 3.2	65L 2.9 LP-I				LP-I							—	—	$^{x}15$			
	9.6	9NL 6.2	9L 3.4 PY					PY							$^{x}2$	$^{x}3$	$^{x}5$			
NWW	5.4	9L 1.6	N,Wb 9L 2.1	PY 9L 1.7	KK		T1	KK	$^{\Delta}57$	$^{\Delta}51$	$^{\Delta}52$									
	7.1	9L 1.6	9L 2.3	65L 3.2				KK	$^{x}36$	$^{x}26$	$^{x}24$									
	7.1	9L 1.6	9L 2.3	65L 3.2				•	$^{x}3$	$^{x}5$	$^{x}10$									
	5.4(4.0)	9L 1.6	9L 2.1	9L 1.7				KK TOLL	$^{*}33$ $^{x}20$	$^{*}33$ $^{x}20$	$^{*}47$ $^{x}29$									
	7.1	9L 1.6	9L 2.3	(SS) 65L 3.2				KK TEST	10	10	16									
		9NL	9NL	9NL				KK OBS	3	3	3									
		•	•	•				SR	$^{x}42$	$^{x}33$	$^{x}48$									
	9.0	9L 1.6	9L 2.1	9L 1.7 KK	5NL 3.6 SR			•	$^{x}3$	$^{x}5$	$^{x}10$									
	10.1	9L 1.6	9L 2.1	5L 6.4 SR				PTW	—	$^{x}23$	$^{x}49$									
	8.2	9L 1.6	9L 2.3	5L 4.3 PTW				SS	$^{x}26$	$^{x}31$	$^{x}62$									
	11.0	9NL 6.5 BS	9NL 4.5 SS					BP	—	—	$^{x}20$									
	10.5	9NL 6.5 BS	9L 1.9 SS	65NL 2.1 BP																
	5.2	65L 2.9 N,Wb	9L 2.3 PY				T2	PY							$^{\Delta}43$	$^{\Delta}39$	$^{\Delta}41$			
	10.7	65NL 5.0	9NL 5.7					PY							$^{x}36$	$^{x}16$	$^{x}27$			
	9.0	65L 2.9	9L 2.1	65NL 4.0 IM				IM							—	—	$^{x}26$			
	7.9	65L 2.9	9L 2.1	65L 2.9 LP-I				LP-I							$^{x}13$	$^{x}18$	$^{x}30$			
BK	5.6	9L 2.4 PY	65L 3.2 KK				T1	KK	$^{\Delta}42$	$^{\Delta}33$	$^{\Delta}38$									
	9.3	9L 2.4	65NL 6.7					KK	$^{x}13$	$^{x}25$	$^{x}35$									
		9NL	65NL					KK	<	3	5									
	4.1	9L 2.4	9L 1.7					KK TOLL	$^{*}33$ $^{x}20$	$^{*}23$ $^{x}15$	$^{*}35$ $^{x}22$									
	9.3	9L 2.6	65NL 6.7					KK TEST	10	18	12									
		9NL	65NL					KK OBS	3	3	3									
		•	•					SR	$^{x}30$	—	—									
	8.8	9L 2.4	5L 6.4 SR					•	3	5	10									
		9NL	5NL					KK	$^{x}60$	—	—									
	9.3	9L 2.6	65NL 6.7					BP	$^{x}11$	—	$^{x}10$									
	10.6	9L 2.6 PY	9NL 5.3 SS	5NL 2.7 BP				PTW	$^{x}11$	$^{x}28$	$^{x}47$									
	10.3	9L 2.6	5NL 7.7 PTW					SS	$^{x}11$	—	$^{x}33$									
	7.9	9L 2.6	9NL 5.3 SS																	
	2.6	9L 2.6 PY					T2	PY							$^{\Delta}30$	$^{\Delta}32$	$^{\Delta}30$			
	6.1	9NL 6.1						PY							$^{x}67$	$^{x}20$	$^{x}20$			
		9NL						PYTKE							1	1	1			
	9.4	9NL 6.1	65L 2.2 BS Sb	9L 1.1 BS				BS							$^{x}31$	$^{x}11$	$^{x}34$			
	10.1	9NL 6.1	65NL 4.0 IM					IM							—	—	$^{x}26$			
	9.2	9NL 6.1	65L 3.1 LP-I					LP-I							$^{x}22$	$^{x}22$	$^{x}38$			

T4 ——LS——> T3, T6

NO (1/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS						DESTINATION OFFICE		T3 CABLE 76	T3 CABLE 80	T3 CABLE 90	T3 PCM 76	T3 PCM 80	T3 PCM 90	T6 CABLE 76	T6 CABLE 80	T6 CABLE 90	T6 PCM 76	T6 PCM 80	T6 PCM 90
LS	2.0	PCM 2.0 P	L					T3	PL				Δ19	Δ31	Δ54						
	9.4	9L 3.6 P	Y 65NL 5.6 P	L					PL	x1	x3	x9									
	2.0	PCM 2.0 P	L						〃				Δ54	Δ80	Δ128						
	4.7	〃 2.0	65L 2.7 M	M					MM				Δ24	Δ25	Δ46						
	5.0	〃 2.0 P	Y 65L 3.0 A	SD					ASD				Δ17	Δ55	Δ64						
	7.9	〃 2.0	65NL 5.9						〃				—	—	x10						
	5.2	〃 2.0	5L 3.2 S	KV					SKV				—	Δ50	Δ53						
	2.0	PCM 2.0 P	KN					T6	PKN										Δ25	Δ36	Δ57
	2.0	〃 2.0							PKN										Δ17	Δ36	Δ55
	5.5	PCM 2.0 P	L 65L 3.5 C	P					CP										Δ38	Δ62	Δ76
	5.6	PCM 2.0 P	KN 5L 3.6 B	N					BN										Δ23	Δ24	Δ35
	4.0	〃 2.0 P	Y PCM 2.0 K	C					KC										Δ27	Δ41	Δ43
	4.0	〃 2.0	〃 2.0						〃										—	—	x12
	5.4	〃 2.0 P	KN 65L 2.2 B	N	9L 1.2 P	S			PS										Δ15	Δ24	Δ35
	2.0	〃 2.0	PCM — S	NP					SMP										Δ15	Δ17	Δ25
	2.0	〃 2.0	〃 — O	N-2					ON-2										—	Δ20	Δ42
	4.8	〃 2.0	65L 2.8 O	N-1					ON-1										—	Δ26	Δ42
	2.0	〃 2.0	PCM — B	YP					BYP										—	Δ11	Δ14
	2.0	〃 2.0	〃 — L	KB					LKB										—	Δ13	Δ13
	4.5	〃 2.0	9L 2.5 H	M					HM										Δ16	Δ44	Δ44
PTN	2.0	PCM 2.0 L	S PCM — P	L				T3	PL	—	x3	x9	—	Δ21	Δ43						
	7.6	9L 2.9	9L 3.2 P	Y 9L 1.5 P	L																
	2.0	PCM 2.0 L	S PCM — P	KN				T6	PKN										Δ18	Δ32	
PK	2.0	PCM 2.0 L	S PCM — P	L				T3	PL	—	x3	x9	—	Δ31	Δ41						
	7.6	6L 2.9	6L 3.2 P	Y 9L 1.5 P	Y																
	8.1	9L 3.1 L	S PCM 2.0 P	Y 65L 3.0 A	SD				ASD				—	—	x10						
	2.0	PCM 2.0 L	S PCM — P	KN				T6	PKN												
SDM	2.0	PCM 2.0 L	S PCM 2.0 P	L				T3	PL	—	x3	x9	—	Δ41	Δ20						
	8.2	65NL 6.2	〃 2.0 P	L					PL				—	—	x22						
	9.3	65L 4.3	〃 2.0 P	Y 65L 3.0 A	SD				ASD				—	—	x12						
	9.5	65L 4.3	〃 2.0 P	L 5L 3.2 S	KV				SKV				—	—	x10						
	9.1	65L 4.1	9L 3.2	65L 2.8 P	L				PL												
	4.5	9L 4.3 L	S PCM 2.0 P	KN				T6	PKN										Δ42	Δ52	
BCH	2.0	PCM 2.0 L	S PCM — P	L				T3	PL	—	x3	x9	—	Δ21	Δ35						
	10.7	9L 4.7	9L 3.2 P	Y 65L 2.8 P	L				PL												
	7.9	PCM 2.0	PCM —	65NL 5.9 A	SD				ASD				—	—	x12						
	7.3	〃 2.0	〃 —	5NL 5.3 S	KV				SKV				—	—	x12						
	2.0	PCM 2.0 L	S PCM — P	KN				T6	PKN										—	Δ43	Δ58
RID	4.7	9L 2.7 L	S PCM 2.0 P	L				T3	PL	—	x2	x9	—	Δ20	Δ37						
	6.7	9L 2.7	9L 3.2 P	Y 65L 2.8 P	L				PL												
	7.7	9L 2.7 L	S PCM 2.0 P	Y 65L 3.0 A	SD				ASD				—	—	x10						
	7.9	9L 2.7	〃 2.0 P	L 5NL 5.3 S	KV				SKV				—	—	x11						
	4.7	9L 2.7 L	S PCM 2.0 P	KN				T6	PKN										—	Δ41	Δ62
	9.1	PCM — P	Y 〃 2.0 L	S 9NL 7.1 K	C				KC				—	x11	x31						
	8.7	9L 2.7 L	S 〃 2.0 P	KN 5L 4.0 O	N-1				ON-1				—	—	x10						
	7.2	9L 2.7	〃 2.0 P	L 9L 2.5 H	M				HM				—	—	x25						

T4 —LS— T3 T6

NO (2/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		T3 CABLE 76	T3 CABLE 80	T3 CABLE 90	T3 PCM 76	T3 PCM 80	T3 PCM 90	T6 CABLE 76	T6 CABLE 80	T6 CABLE 90	T6 PCM 76	T6 PCM 80	T6 PCM 90
R S	2.0	PCM 2.0 LS PCM — PL	T3	PL				—	$^{\Delta}27$	$^{\Delta}56$						
	9.9	9L 5.2 9L 3.2 PY ·9L 1.5 PL		PL	—	$^{x}2$	$^{x}9$									
	4.0	PCM 2.0 LS PCM 2.0 PKN	T6	PKN										—	$^{\Delta}27$	$^{\Delta}52$
D M	2.0	PCM 2.0 LS PCM — PL	T3	PL				$^{\Delta}30$	$^{\Delta}36$	$^{\Delta}22$						
	9.7	9L 2.3 9L 3.4 PY 9NL 4.0 PL		PL	—	—	$^{x}28$									
	6.3	9L 2.3 9L 3.2 65L 2.8 PL		PL	$^{x}2$	$^{x}3$	$^{x}5$									
	8.2	9L 2.3 9L 3.2 9L 1.3 ·9L 1.4 MM		MM	$^{x}2$	$^{x}4$	$^{x}6$									
	7.5	9L 2.5 PCM 2.0 65 3.0 ASD		ASD				—	$^{x}10$	$^{x}25$						
	7.7	9L 2.5 PCM 2.0 5L 3.2 SKV		SKV				—	—	$^{x}25$						
	4.0	PCM 2.0 PY PCM 2.0 PKN	T6	PKN										$^{\Delta}38$	$^{\Delta}45$	$^{\Delta}48$
	10.2	9NL 6.2 LS PCM 2.0 PY PCM 2.0 KC		KC										—	—	$^{x}10$
	11.0	9L 2.5 PCM 2.0 9NL 6.5 HM		HM										—	—	$^{x}21$
NWW	5.2	9L 1.6 NWD 9L 2.1 PY 9L 1.5 PL	T3	PL	$^{\Delta}35$	$^{\Delta}40$	$^{\Delta}51$									
	9.7	9L 1.6 9L 2.3 65NL 5.8 PL		PL	—	—	$^{x}20$									
	9.7	9L 1.6 9L 2.3 65NL 5.8 PL		PL	$^{x}2$	$^{x}3$	$^{x}5$									
	9.8	9L 2.5 LS PCM 2.0 PY 65L 3.0 ASD		ASD				—	$^{x}12$	$^{x}29$						
	9.3	9L 1.6 NWD 9L 2.1 PY 65L 2.6 PL 5L 3.0 SKV		SKV	—	$^{x}10$	$^{x}13$									
	5.9	9L 1.6 NWD 9L 2.3 PY PCM 2.0 PKN	T6	PKN							$^{\Delta}27$	$^{\Delta}34$	$^{\Delta}37$			
	5.9	9L 1.6 ·9L 2.3 PCM 2.0 KC		KC							$^{x}10$	—	$^{x}11$			
B K	5.2	9L 2.4 PY 65NL 2.8 PL	T3	PL	$^{\Delta}37$	$^{\Delta}29$	$^{\Delta}47$									
	8.4	9L 2.6 ·65NL 5.8		PL	$^{x}40$	$^{x}20$	$^{x}34$									
	8.4	9L 2.6 65NL 5.8 ASD		ASD	$^{x}2$	$^{x}3$	$^{x}5$									
	8.3	9L 2.4 65NL 5.9		ASD	$^{x}11$	$^{x}17$	$^{x}25$									
	10.5	9L 2.4 65L 2.8 5NL 5.3 SKV		SKV	—	$^{x}16$	$^{x}23$									
	4.4	9L 2.4 PY PCM 2.0 PKN	T6	PKN							$^{\Delta}50$	$^{\Delta}33$	$^{\Delta}49$			
	8.9	9L 2.4 65L 2.6 ASD 65L 3.9 CP		CP							$^{x}20$	—	—			
	7.8	9L 2.4 PCM 2.0 SKN 65L 3.4 HM		HM							$^{x}10$	—	$^{x}14$			

T4 —— LS ——→ T5, T7

NO (1/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		T5 CABLE 76	T5 CABLE 80	T5 CABLE 90	T5 PCM 76	T5 PCM 80	T5 PCM 90	T7 CABLE 76	T7 CABLE 80	T7 CABLE 90	T7 PCM 76	T7 PCM 80	T7 PCM 90
L S	2.0	PCM 2.0 TH	T5	TH												
	2.0	" 2.0		TH												
	5.1	" 2.0 BC 9L 3.1		BC												
	5.3	" 2.0 DK 9NL 3.3		DK												
	2.0	" 2.0 NK PCM —		NK												
	2.0	" 2.0 BC 9L 1.1 DK 65L 2.4 PSR		PSR												
	6.1	" 2.0 9L 1.3 BKT 65L 2.8		BKT												
	6.0	" 2.0 CHW 5L 4.0		CHW												
	2.0	" 2.0 MSK PCM —		MSK												
	2.0	" 2.0 PPJ " —		PPJ												
	2.0	PCM 2.0 SW	T7	SW												
	7.2	9L 3.4 PY 65L 3.8 SW		SW												
		9NL 65NL														
	4.1	PCM 2.0 SW 9L 2.1 TK		TK												
	5.1	" 2.0 PL 9L 1.4 MM 9L 1.7 SP		SP												
	5.3	" 2.0 SW 5L 3.3 TC		TC												
PTN	2.0	PCM 2.0 LS PCM — TH	T5	TH												
	2.0	PCM 2.0 LS PCM — SW	T7	SW												
	12.9/10	9L 7.6 LS 9L 3.2 PY 9L 2.1 SW		SW												
PK	2.0	PCM 2.0 LS PCM — TH	T5	TH												
	2.0	PCM 2.0 LS PCM — SW	T7	SW												
	8.2	9L 2.9 9L 3.2 PY 9L 2.1 SW		SW												
		9NL 9NL 9NL														
SDM	4.5	9L 2.5 LS PCM 2.0 TH	T5	TH												
	8.2	65NL 6.2 " 2.0		TH												
	4.5	9L 2.5 LS PCM 2.0 SW	T7	SW												
	9.5	65L 4.2 9L 3.2 PY 9L 2.1 SW		SW												
		65NL 9NL 9NL														
BCH	2.0	PCM 2.0 LS PCM — TH	T5	TH												
	2.0	PCM 2.0 PY PCM — SW	T7	SW												
	10.0	9L 4.7 9L 3.2 PY 9L 2.1 SW		SW												
RID	4.7	9L 2.7 LS PCM 2.0 TH	T5	TH												
	4.7	9L 2.7 LS PCM 2.0 SW	T7	SW												
	9.7	9L 2.5 9L 3.4 PY 65L 3.8 SW		SW												
		65NL 9NL 65NL														
RS	2.0	PCM 2.0 LS PCM — TH	T5	TH												
	2.0	PCM 2.0 LS PCM — SW	T7	SW												
	10.5	9L 5.2 9L 3.2 PY 9L 2.1 SW		SW												
		9NL 9NL 9NL														

T4 ——LS——→ T5,T7

NO (2/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T5 CABLE 76	T5 CABLE 80	T5 CABLE 90	T5 PCM 76	T5 PCM 80	T5 PCM 90	T7 CABLE 76	T7 CABLE 80	T7 CABLE 90	T7 PCM 76	T7 PCM 80	T7 PCM 90
DM	40	PCM 20 P	Y PCM 20 T	H			T5	TH				$^{\Delta}24$	$^{\Delta}28$	$^{\Delta}41$						
	64	PCM 20 P	Y PCM — S	W			T7	SW												
	76	9L 23	9L 32 P	Y 9L 21 S	W			SW										$^{\Delta}29$	$^{\Delta}30$	$^{\Delta}41$
		9NL	·9NL	·9NL				SW							$^{x}3$	$^{x}5$	$^{x}10$			
															3	5	10			
NWW	59	9L 16 N	WD 9L 23 P	Y PCM 20 T	H		T5	TH	$^{\Delta}26$	$^{\Delta}26$	$^{\Delta}37$									
	58	9L 16 N	WD 9L 21 P	Y 9L 21 S	W		T7	SW							$^{\Delta}38$	$^{\Delta}33$	$^{\Delta}44$			
	77	9L 16	9L 21	65L3.8				SW							$^{x}1$	$^{x}3$	$^{x}9$			
BK	46	9L 26	PCM 20 T	H			T5	TH	$^{\Delta}27$	$^{\Delta}19$	$^{\Delta}29$									
	45	9L 24 P	Y 9L 21 S	W			T7	SW							$^{\Delta}40$	$^{\Delta}25$	$^{\Delta}35$			
	109	9L 26	·65NL8.3					SW							$^{\Delta}51$	—	$^{\Delta}36$			
	109	9L 26	65NL8.3					SW							—	$^{x}3$	$^{x}9$			
		9NL	65NL					SW							13	24	37			

T5 ——TH——→ T1 T1(SR)

NO (1/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T1 CABLE 76	T1 CABLE 80	T1 CABLE 90	T1 PCM 76	T1 PCM 80	T1 PCM 90	T1(SR) CABLE 76	T1(SR) CABLE 80	T1(SR) CABLE 90	T1(SR) PCM 76	T1(SR) PCM 80	T1(SR) PCM 90
TH	3.2	·65L 3.2 KK					T1	KK	Δ36	Δ33	Δ39									
	3.2	" 3.2						KK	Δ74	Δ96	Δ100									
	6.3	·65NL 6.3						KK	x168	x124	x120									
	6.3	" 6.3						KK	x66	x120	x140									
	3.2	·65L 3.2						KK TOLL	•102	•111	•168									
	6.3	·65NL 6.3							x59	x63	x94									
	5.6	·65L 3.0	·5L 2.6 SS					SS	Δ29	Δ38	Δ49									
	10.7	65NL 6.3	5NL 4.4					SS	x12	x27	x61									
		·65NL	5NL					SS	2	3	5									
	6.0	65L 3.0	5L 3.0 PTW					PTW	Δ34	Δ62	Δ70									
	8.3	65L 3.2	5NL 5.1					PTW	x43	x138	x231									
		·65NL						KK TEST	40	44	70									
		"						KK OBS	3	3	3									
	4.8	5NL 4.8 SR					T1	SR							Δ96	Δ132	Δ141			
	4.8	" 4.8						SR							x336	x294	x432			
		"						SR TKE							1	1	1			
		"						SR							19	30	59			
PPJ	5.2	PCM 2.0 TH	65L 3.2 KK				T1	KK	—	Δ22	Δ40									
	3.8	" 2.0	9L 1.8					KK TOLL	—	•15	•26									
	5.2	" 2.0	65L 3.2						—	x10	x17									
		9NL	65NL					KK TEST OBS	—	7	11									
	8.6	9L 5.6	·65L 3.0					KK	—	x2	x9									
PD	5.2	PCM 2.0 TH	65L 3.2 KK				T1	KK	Δ37	Δ42	Δ40									
	3.8	" 2.0	·9L 1.8					KK TOLL	•22	•27	•42									
	8.3	PCM 2.0	65NL 6.3						x14	x17	x26									
		9NL	65NL					KK TEST OBS	9	11	17									
	8.3	PCM 2.0	65NL 6.3					KK	x3	x5	x10									
	8.9	PCM 2.0	9L 1.8 KK	5NL 5.1 PTW				PTW	—	—	x18									
	5.8	PCM 2.0	5NL 4.8 SR					SR							x30	x33	x78			
BKT	5.5	·65L 2.8 DK	9L 1.1 TH	9L 1.6 KK			T1	KK	—	Δ53	Δ47									
	5.5(4.0)	65L 2.8	9L 1.1	9L 1.6				KK TOLL	—	•40	•75									
	10.4	65L 2.8	9L 1.3	65NL 6.3					—	x25	x44									
		65NL	9NL	65NL				KK TEST OBS	—	17	31									
	10.4	65L 2.8	9L 1.3	65NL 6.3				KK	—	x3	x9									
	10.3	65L 2.8	9L 1.1	65L 3.0	65NL 3.4 SS			SS	—	—	x12									
	8.1	" 2.8	9L 1.1	9L 1.4	5L 2.8 PTW			PTW	—	—	x36									
	8.9	" 2.8	9L 1.1	5NL 4.8 SR				SR							—	—	x63			
DK	5.1	9NL 3.3 TH	9L 1.8 KK				T1	KK	Δ50	Δ56	Δ37									
	2.9	9L 1.3	9L 1.8					KK TOLL	•47	•52	•80									
	9.9	9NL 3.3	65NL 6.3						x29	x31	x46									
	9.9	" 3.3	" 6.3					KK	x40	—	—									
		9NL	65NL					KK TEST OBS	19	21	33									
	9.9	9NL 3.3	65NL 6.3					KK	x18	x33	x57									
	8.9	9NL 3.3	65L 3.0	5L 2.6 SS				SS	—	—	x29									
	9.1	" 3.3	" 3.0	5L 2.8 PTW				PTW	—	x30	x52									
	8.1	" 3.3	5NL 4.8 SR					SR							x36	x30	x75			
		9NL	5NL					SR							3	5	10			
NK	5.2	PCM 2.0 TH	65L 3.2 KK				T1	KK	—	Δ23	Δ31									
	5.9(4.0) (3.8)	9L 4.3 (PCM 2.0)	9L 1.6 (9L 1.8)					KK TOLL	•9	•17	•22									
	10.8	9L 4.5	65NL 6.3						x7	x11	x14									
		9NL	65NL					KK TEST OBS	5	7	9									
	10.8	9L 4.5	65NL 6.3					KK	—	x2	x9									
MSK	5.2	PCM 2.0 TH	65L 3.2 KK				T1	KK	—	Δ33	Δ41									
	3.8	" 2.0	9L 1.8					KK TOLL	—	•23	•29									
	10.8	9L 4.5	65NL 6.3						—	x15	x19									
		9NL	65NL					KK TEST OBS	—	11	13									
	10.8	9L 4.5	65NL 6.3					KK	—	x2	x9									

T5 ——— TH ——— TI T I (SR)

NO (2/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS					DESTINATION OFFICE		T I CABLE 76	T I CABLE 80	T I CABLE 90	T I PCM 76	T I PCM 80	T I PCM 90	T I (SR) CABLE 76	T I (SR) CABLE 80	T I (SR) CABLE 90	T I (SR) PCM 76	T I (SR) PCM 80	T I (SR) PCM 90
PSR	4 9	65L 2 4 BC	9L 0.9 TH	9L 1 6 KK			T I	KK	Δ25	Δ43	Δ61									
	4.9(4.0)	65L 2 4	9L 0 9	9L 1 6				KK TOLL	•17	•38	•57									
	6.7	65L 2 4	9L 1 1 (1.7)	65NL 3.2					x11	x23	x34									
		65NL	9NL	65NL				KK TEST OBS	7	15	23									
	6 5	65L 2.4	9L 1.1	65NL 3.0				KK	x11	x23	x34									
	7 7	65L 2 4	9L 0 9	9L 1 4	5L 3.0 PTW			PTW	—	x23	x39									
BC	4 5	5L 2 9 TH	9L 1.6 KK				T I	KK	Δ56	Δ43	Δ34									
	2 7	9L 1 1	9L 1 6					KK TOLL	•38	•38	•71									
	8 2	5NL 5 0	65L 3 2						x23	x23	x41									
		5NL	65NL					KK TEST OBS	15	15	29									
	8 0	5NL 5.0	65L 3.0					KK	x23	x45	x60									
	8 7	5L 2 9	65L 2.8	5L 3.0 PTW				PTW	—	x23	x49									
	8 3	5L 2 9	65L 2.8	5L 2.6 SS				SS	—	—	x26									
	9 8	5NL 5.0	5NL 4.8 SR					SR							—	—	x69			
		"	"					SR							10	15	30			
CHW	5 4	5L 3.8 TH	9L 1 6 KK				T I	KK	Δ33	Δ40	Δ45									
	5.4(4.0)	5L 3 8	9L 1 6					KK TOLL	•33	•51	•98									
	9 8	5NL 6 6 (3.3)	65L 3 2						x20	x31	x56									
	9 8	" 6.6	" 3.2					KK	x26	x30	x38									
		5NL	65NL					KK TEST OBS	13	21	41									
	9 8	5NL 6.6	65L 3 2					KK	x11	x23	x34									
	8 2	5L 3 8	9L 1 4	5L 3.0 PTW				PTW	—	x48	x106									
	8 8	5L 4 0	5NL 4.8 SR					SR							x81	x105	x207			

T6 ——PKN——> T1, T3

NO (1/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		T1 CABLE 76	T1 CABLE 80	T1 CABLE 90	T1 PCM 76	T1 PCM 80	T1 PCM 90	T3 CABLE 76	T3 CABLE 80	T3 CABLE 90	T3 PCM 76	T3 PCM 80	T3 PCM 90
PKN	2.0	PCM 2.0 KK	T1	KK				△38	△37	△34						
	2.0	" 2.0		KK				△92	△132	△134						
	7.9	65L 4.4 PL 5L 3.5 KK		KK	—	×22	×22									
	2.0	PCM 2.0 KK		KK TOLL				·33	·66	·102						
	7.9	65L 4.4 5L 3.5			×21	×40	×60									
		65NL 5NL		KKTEST	10	24	40									
		65NL ·5NL		KKOBS	3	3	3									
	5.6	PCM 2.0 KK 5NL 3.6 SR		SR				△162	△276	△258						
	7.8	65L 4.4 PL 65L 3.4 SR		SR	×45	×78	×120									
	4.8	PCM 2.0 KK 65L 2.8 BP		BP				△40	△46	△74						
	9.1	65L 4.4 PL 65L 2.1 KK 65L 2.6 BP		BP	—	—	×11									
	4.8	PCM 2.0 KK 5L 2.8 SS		SS				△45	△63	△69						
	9.1	65L 4.4 PL 65L 2.1 KK 5L 2.6 SS		SS	—	—	×20									
	6.1	65L 4.4 5L 1.7 PTW		PTW	△45	△81	△12									
	7.9	65L 4.4 5L 3.5 KK		KK	×1	×3	×9									
	4.6	65L 4.6 PL	T3	PL							△22	△30	△38			
	4.6	65L 4.6		PL							△96	△146	△176			
	4.6	65L 4.6		PL							×32	×54	×102			
	5.8	65L 4.4 PL 9L 1.4 MM		MM							△57	△86	△100			
	8.2	65L 4.4 5L 3.8		MM							×16	×23	×46			
	5.2	65L 5.2 ASD		ASD							△42	△107	△135			
	5.2	65L 5.2		ASD							—	×32	×51			
	4.0	5L 2.2 CP 5L 1.8 SKV		SKV							—	△75	△95			
	6.8	5NL 3.8 ·5NL 3.0		SKV							—	×34	×52			
	4.6	65L 4.6 PL		PL							×11	×23	×34			
SMP	2.0	PCM 2.0 PKN PCM — KK	T1	KK				△37	△40	△45						
	2.0	" 2.0 " —		KK TOLL				·33	·38	·56						
	10.4	9L 1.8 PS 9L 2.1 PKN 65L 4.2 PL 65L 2.3 KK			×20	×23	×33									
		9NL 9NL 65NL 65NL		KKTEST	10	12	20									
		" " " "		KKOBS	3	3	3									
	9.7	9L 1.8 65L 3.9 65L 4.2 5L 1.7 PTW		PTW	—	×12	×36									
	10.4	9L 1.8 65L 3.9 65L 4.2 65L 2.3 KK		KK	×1	×3	×9									
	4.6	PCM 2.0 PKN 9L 2.6 PL	T3	PL							△36	△39	△18			
	8.3	9L 1.8 PS 9L 2.1 PKN 65L 4.4 PL		PL							×20	—	×58			
	8.9	PCM 2.0 PKN 65L 4.4 PY 65L 2.5 MM		MM							—	—	×12			
	8.9	9L 1.8 9L 2.1 PKN 65L 5.0 ASD		ASD							—	×15	×37			
	7.8	9L 1.8 9L 2.1 5L 3.9 SKV		SKV							—	×24	×34			
	10.1	9L 1.8 65L 3.9 65L 4.4 PL		PL							×1	×3	×9			
BYP	2.0	PCM 2.0 PKN PCM — KK	T1	KK					—	△23 △29						
	2.0	" 2.0 " —		KK TOLL					—	·21 ·27						
	8.3	9L 3.6 9L 2.4 PL 65L 2.3 KK			—	×14	×17									
		9NL 9NL 65L		KKTEST	—	6	8									
		" " "		KKMISC	—	3	3									
	8.3	9L 3.6 9L 2.4 PL 65L 2.3 KK		KK	—	×2	×9									
	4.6	PCM 2.0 PKN 9L 2.6 PL	T3	PL							—	△26	△36			
	8.0	9L 3.6 65L 4.4		PL							—	×2	×9			
PS	5.4	9L 1.2 BN 65L 2.2 PKN PCM 2.0 KK	T1	KK				△37	△49	△60						
	5.7(4.0)	" 1.2 9L 1.1 9L 2.4 PL (1.3) 9L 1.0 KK		KK TOLL	·33	·57	·84									
	8.8	65L 2.1 65L 2.0 9L 2.4 65L 2.3			×20	×34	×49									
		65NL ·65NL 9NL 65NL		KKTEST	10	20	32									
		" " 9NL "		KKOBS	3	3	3									
	9.9	65L 4.1 PKN 9L 2.4 PL 65L 3.4 SR		SR	—	—	39									
	8.3	9L 2.3 9L 2.2 65L 2.1 KK 65L 1.7 SS		SS	—	—	×25									
	10.0	65L 4.1 65L 2.4 5L 1.7 PTW		PTW	—	×30	×53									
	10.6	65L 4.1 65L 4.2 65L 2.3 KK		KK	×1	×3	×9									
	4.7	9L 1.2 BN 9L 1.1 PKN 9L 2.4 PL	T3	PL							△36	△48	△32			
	8.5	65L 2.1 65L 2.0 65L 4.4		PL							—	×22	×80			
	9.0	9L 1.2 9L 1.1 65L 4.2 65L 2.5 MM		MM							—	—	×27			
	9.1	65L 2.1 65L 2.0 65L 5.0 ASD		ASD							—	×31	×51			
	11.1	65L 2.1 65L 2.2 5NL 3.0 CP 5NL 3.8 SKV		SKV							—	×40	×59			
	8.5	65L 2.1 65L 2.0 65L 4.4 PL		PL							×2	×3	×5			

PKN
T6 ——— T1 T3

NO (2/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		T1 CABLE 76	T1 CABLE 80	T1 CABLE 90	T1 PCM 76	T1 PCM 80	T1 PCM 90	T3 CABLE 76	T3 CABLE 80	T3 CABLE 90	T3 PCM 76	T3 PCM 80	T3 PCM 90
BN	5.6	5L 3.6 PKN PCM 2.0 KK	T1	KK				Δ_{63}	Δ_{48}	Δ_{57}						
	8.7	65L 2.2 65L 4.2 PL 65L 2.3 KK		KK	x_{22}	—	—									
	3.5	9L 1.5 PCM 2.0 KK		KK TOLL				$\cdot_{57}$	$\cdot_{57}$	$\cdot_{84}$						
	8.7	65L 2.2 65L 4.2 PL 65L 2.3 KK			x_{34}	x_{34}	x_{49}									
		65NL 65NL 65NL		KKTEST	20	20	32									
		" " "		KKOBS	3	3	3									
	9.3	5L 3.4 ·65L 4.2 PL 5L 1.7 PTW		PTW	—	x_{36}	x_{58}									
	8.2	65L 2.2 9L 2.2 65L 2.1 KK 65L 1.7 SS		SS	—	—	x_{23}									
	9.0	" 3.4 9L 2.2 65L 3.4 SR		SR	x_{30}	—	x_{33}									
		5NL 65NL 5NL		SR	8	13	25									
	9.9	5L 3.4 65L 4.2 65L 2.3 KK		KK	x_{3}	x_{6}	x_{10}									
		5NL 65NL 65NL		KK	2	2	5									
	5.7	9L 1.3 PKN 65L 4.4 PL	T3	PL							Δ_{20}	Δ_{17}	Δ_{22}			
	7.8	5L 3.4 65L 4.4		PL							x_{70}	x_{50}	x_{92}			
	8.9	65L 2.2 65L 4.2 PL 65L 2.5 MM		MM							x_{28}	x_{11}	x_{34}			
	8.4	" 3.4 65L 5.0 ASD		ASD							x_{10}	x_{38}	x_{58}			
	7.2	" 3.4 5L 1.6 CP 5L 2.2 SKV		SKV							—	x_{37}	x_{54}			
	7.8	" 3.4 65L 4.4 PL		PL							x_{2}	x_{3}	x_{5}			
LKB	2.0	PCM 2.0 PKN PCM — KK	T1	KK				—	Δ_{39}	Δ_{38}						
	2.0	" 2.0 " —		KK TOLL				—	$\cdot_{19}$	$\cdot_{19}$						
	9.3	9L 5.8 9L 2.2 PL 9L 1.3 KK			—	x_{13}	x_{13}									
		9NL 9NL 9NL		KKTEST	—	6	6									
		" " "		KKOBS	—	3	3									
	10.3	9L 5.8 9L 2.2 PL 65L 2.3 KK		KK	—	x_{2}	x_{8}									
	4.6	PCM 2.0 PKN 9L 2.6 PL	T3	PL							—	Δ_{42}	Δ_{45}			
	10.2	9L 5.8 65L 4.4		PL							—	x_{2}	x_{8}			
ON-2	2.0	PCM 2.0 PKN PCM — KK	T1	KK				—	Δ_{32}	Δ_{40}						
	2.0	" 2.0 " —		KK TOLL				—	$\cdot_{35}$	$\cdot_{75}$						
	7.9	9L 3.4 9L 2.2 PL 65L 2.3 KK			—	x_{22}	x_{44}									
		9NL 9NL ·65NL		KKTEST	—	12	28									
		" " "		KKOBS	—	3	3									
	9.0	9L 3.4 9L 2.2 65L 3.4 SR		SR	—	x_{39}	x_{123}									
	9.1	PCM 2.0 9L 2.4 ·65L 2.1 KK 65L 2.6 BP		BP	—	—	x_{10}									
	9.1	PCM 2.0 9L 2.4 65L 2.1 5L 2.6 SS		SS	—	—	x_{14}									
	10.7	9L 3.4 65L 4.4 ·5NL 2.9 PTW		PTW	—	x_{11}	x_{48}									
	9.9	9L 3.4 65L 4.2 PL ·65L 2.3 KK		KK	—	x_{3}	x_{9}									
	4.6	PCM 2.0 PKN ·9L 2.6 PL	T3	PL							—	Δ_{19}	Δ_{31}			
	7.8	9L 3.4 65L 4.4		PL							—	x_{23}	x_{98}			
	9.0	9L 3.4 65L 4.2 9L 2.4 MM		MM							—	x_{12}	x_{47}			
	8.2	9L 3.4 65L 4.8 ASD		ASD							—	x_{16}	x_{56}			
	10.5	9L 3.6 ·5NL 3.0 CP 5NL 3.9 SKV		SKV							—	x_{17}	x_{54}			
	7.8	9L 3.4 65L 4.4 PL		PL							—	x_{3}	x_{9}			
ON-1	4.8	65L 2.8 PKN PCM 2.0 KK	T1	KK				—	Δ_{51}	Δ_{69}						
	8.1(4.0)	65L 2.6 ·9L 2.2 PL 9L 1.3 KK		KK TOLL	—	$\cdot_{47}$	$\cdot_{102}$									
	9.1	65L 2.6 65L 4.2 65L 2.3			—	x_{29}	x_{59}									
		65L 65NL 65NL		KKTEST	—	16	40									
		" " "		KKOBS	—	3	3									
	8.2	65L 2.6 9L 2.2 65L 3.4 SR		SR	—	x_{42}	x_{156}									
	8.5	65L 2.6 9L 2.2 9L 1.1 KK 65L 2.6 BP		BP	—	—	x_{10}									
	8.6	65L 2.6 9L 2.2 65L 2.1 65L 1.7 SS		SS	—	—	x_{15}									
	8.5	65L 2.6 65L 4.2 5L 1.7 PTW		PTW	—	x_{24}	x_{62}									
	10.5	5L 4.0 65L 4.2 65L 2.3 KK		KK	—	x_{3}	x_{9}									
	5.0	65L 2.6 PKN ·9L 2.4 PL	T3	PL							—	Δ_{24}	Δ_{39}			
	8.4	5L 4.0 65L 4.4		PL							—	x_{40}	x_{148}			
	8.2	65L 2.6 65L 4.2 9L 1.4 MM		MM							—	x_{17}	x_{73}			
	9.0	5L 4.0 65L 5.0 ASD		ASD							—	x_{19}	x_{67}			
	11.0	·5L 4.2 ·5NL 3.0 CP 5NL 3.8 SKV		SKV							—	x_{37}	x_{82}			
	8.4	·5L 4.0 65L 4.4 PL		PL							—	x_{3}	x_{9}			

PKN

T6 ——+—— T2.T4

NO (1/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		T2 CABLE 76	T2 CABLE 80	T2 CABLE 90	T2 PCM 76	T2 PCM 80	T2 PCM 90	T4 CABLE 76	T4 CABLE 80	T4 CABLE 90	T4 PCM 76	T4 PCM 80	T4 PCM 90
PKN	2 0	PCM 2 0 LS	T4	LS										Δ_{17}	Δ_{36}	Δ_{55}
	2 0	• 2 0		LS										Δ_{25}	Δ_{36}	Δ_{57}
	5 9	• 2.0 PY 9L 2 3 P 9L 1 6 NWW		NWW										Δ_{27}	Δ_{34}	Δ_{37}
	4 4	• 2 0 9L 2.4 BK		BK										Δ_{50}	Δ_{33}	Δ_{49}
	4 0	• 2 0 PCM 2.0 DM		DM										Δ_{38}	Δ_{45}	Δ_{48}
	2 0	• 2 0 LS PCM — RS		RS										—	Δ_{27}	Δ_{52}
	2 0	• 2 0 PCM — BCH		BCH										—	Δ_{43}	Δ_{58}
	4 7	• 2 0 9L 2.7 RID		RID										—	Δ_{41}	Δ_{62}
	4 5	• 2 0 9L 2 5 SDM		SDM										—	Δ_{42}	Δ_{52}
	2.0	• 2.0 PCM — PK		PK										—	Δ_{26}	Δ_{37}
	2 0	• 2.0 PCM — PTN		PTN										—	Δ_{18}	Δ_{32}
	2.0	PCM 2 0 PY	T2	PY												
	2.0	• 2.0		PY				Δ_{41}	Δ_{35}	Δ_{31}						
	7.8	65L 5 0 ASD 65L 2 8 PY		PY	—	x_{14}	x_{24}	Δ_{15}	Δ_{123}	Δ_{121}						
	4 4	PCM 2 0 PY 9L 2 4 BS		BS				Δ_{47}	Δ_{51}	Δ_{74}						
	7 1	9L 4.0 65L 2.0 BSD 9L 1.1 BS		BS	—	—	x_{17}									
	5 7	• 2 0 9L 3 7 NN		NN	Δ_{25}	Δ_{34}	Δ_{44}									
	6 0	• 2.0 65NL 4 0 IM		IM	Δ_{33}	Δ_{56}	Δ_{67}									
	9 3	9L 4 2 5NL 5 1 IM		IM	—	x_{14}	x_{22}									
	5.0	9L 1 7 HM 9L 1 7 KC 9L 1 6 LP-2		(LP2)	$\Delta_{(39)}$	$\Delta_{(53)}$	$\Delta_{(74)}$									
	8 0	65L 3 2 65L 3 2 9L 1 6		(LP2)	—	$x_{(14)}$	$x_{(21)}$									
	5 1	PCM 2.0 PY 65L 3.1 LP-1		LPI				Δ_{39}	Δ_{66}	Δ_{82}						
	10 4	9L 4.4 65NL 6.0		LPI	—	x_{10}	x_{19}									
HM	4 5	9L 2.5 PY PCM 2 0 LS	T4	LS										Δ_{16}	Δ_{44}	Δ_{44}
SMP	2.0	PCM 2.0 PKN PCM — LS	T4	LS										Δ_{15}	Δ_{17}	Δ_{25}
	2 0	PCM 2 0 PCM — PY	T2	PY				Δ_{30}	Δ_{42}	Δ_{51}						
	7.9	9L 1.8 PS 65L 1.9 BN 65L 2.2 PKN PCM 2.0 PY		PY				x_{10}	—	—						
	10.2	PCM 2 0 PKN 9L 4 2 PY 65NL 4 0 IM		IM	—	—	x_{22}									
BYP	2 0	PCM 2.0 PKN PCM — LS	T4	LS										—	Δ_{11}	Δ_{14}
	2 0	PCM 2 0 PKN PCM — PY	T2	PY				—	Δ_{24}	Δ_{30}						
PS	5.4	9L 1.2 BN 65L 2.2 PKN PCM 2.0 LS	T4	LS										Δ_{15}	Δ_{24}	Δ_{35}
	5 4	9L 1.2 BN 65L 2 2 PKN PCM 2.0 PY	T2	PY				Δ_{30}	Δ_{34}	Δ_{29}						
	8 1	65L 2.1 65L 2.0 9L 4 0		PY	x_{10}	x_{12}	x_{11}									
	8 5	9L 1 2 9L 1 1 • 3 8 PY 9L 2.4 BS		BS	—	—	x_{32}									
	10 3	9L 1 2 9L 1.1 • 4.0 65NL 4.0 IM		IM	—	x_{22}	x_{34}									
	9 0	9L 1 2 9L 1.1 • 3.8 65L 2 9 LP-1		LP-1	—	x_{22}	x_{40}									
	8 9	• 4.1 PKN 9L 1.5 HM 9L 1.7 KC 9L 1 6 LP-2		LP-2	—	—	$x_{(10)}$									
BN	5.6	5L 3.6 PKN PCM 2.0 LS	T4	LS										Δ_{23}	Δ_{24}	Δ_{25}
	5.6	5L 3.6 PKN PCM 2.0 PY	T2	PY				Δ_{53}	Δ_{62}	Δ_{53}						
	7 4	• 3.4 9L 4.0		PY	x_{28}	—	—									
	8 4	65L 2.2 9L 3.8 9L 2 4 BS		BS	—	—	x_{26}									
	10 2	65L 2 2 • 4 0 65NL 4 0 IM		IM	—	—	x_{29}									
	8.9	65L 2.2 9L 3 8 65L 2 9 LP-1		LP-1	—	—	x_{34}									
LKB	2.0	PCM 2 0 PKN PCM — LS	T4	LS										—	Δ_{13}	Δ_{13}
	2 0	PCM 2.0 PKN PCM — PY	T2	PY				—	Δ_{23}	Δ_{23}						

PKN

T6 ——|——→ T2 T4

NO (2/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		T2 CABLE 76	T2 CABLE 80	T2 CABLE 90	T2 PCM 76	T2 PCM 80	T2 PCM 90	T4 CABLE 76	T4 CABLE 80	T4 CABLE 90	T4 PCM 76	T4 PCM 80	T4 PCM 90
	2.0	PCM 2.0 (PKN) PCM —	T4	LS											$^{\Delta}20$	$^{\Delta}42$
	2.0	PCM 2.0 (PKN) PCM —		PY				—	$^{\Delta}41$	$^{\Delta}39$						
ON-2	10.0	9L 3.6 PCM 2.0 (PY) 9L 4.4 (BS)	T2	BS				—	—	$^{x}10$						
	10.0	9L 3.6 PCM 2.0 5NL 5.1 (IM)		IM				—	—	$^{x}16$						
	9.6	9L 3.6 〃 2.0 65NL 4.0 (P-I)		LP-1				—	—	$^{x}26$						
	11.2	9L 3.4 9L 3.0 (HM) 9L 3.2 (KC) 9L 1.6 (LP-2)		(LP-2)	—	—	$^{x}(15)$									
	4.8	65L 2.8 (PKN) PCM 2.0 (LS)	T4	LS										—	$^{\Delta}26$	$^{\Delta}42$
	8.7	5L 4.0 〃 2.0 9L 2.7		RID										—	—	$^{x}10$
	11.0	5L 4.0 9L 1.5 (HM) 9L 3.2 (KC) 9L 2.3 (BCH)		(BCH)							—	—	$^{x}(10)$			
ON-1	4.8	65L 2.8 (PKN) PCM 2.0 (PY)		PY				—	$^{\Delta}48$	$^{\Delta}45$						
	8.0	5L 4.0 9L 4.0	T2	PY	—	—	$^{x}10$									
	8.6	65L 2.4 9L 3.8 9L 2.4 (BS)		BS	—	—	$^{x}17$									
	10.4	65L 2.4 9L 4.0 65NL 4.0 (IM)		IM	—	—	$^{x}18$									
	9.3	5L 4.2 PCM 2.0 65L 3.1 (LP-1)		LP-1				—	—	$^{x}32$						
	11.8(11.0)	5L 4.0 65L 3.0 (HM) 9L 1.0 (KC) 9L 1.6 (LP-2)		(LP-2)	—	$^{x}(10)$	$^{x}(34)$									
			SUB	4db												
				6db				—	89	84				—	26	42
			TOTAL	11db	—	10	94	—	—	84	—	—	10	—	—	10
				NL												
			GRAND TOTAL		—	10	94	—	89	168				—	26	52

PKN

T6 ——|—— T5 T7

NO (1/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		T5 CABLE 76	T5 CABLE 80	T5 CABLE 90	T5 PCM 76	T5 PCM 80	T5 PCM 90	T7 CABLE 76	T7 CABLE 80	T7 CABLE 90	T7 PCM 76	T7 PCM 80	T7 PCM 90
PKN	4.4	9L 2.4 PL 65L 2.0 SW	T7	SW							$^{\Delta}22$	$^{\Delta}29$	$^{\Delta}32$			
	4.4	9L 2.4 65L 2.0		SW							$^{\Delta}14$	$^{\Delta}95$	$^{\Delta}228$			
	7.4	65L 4.4 5L 3.0		SW							$^{x}60$	$^{x}96$	$^{x}141$			
	5.8	9L 2.4 65L 1.8 9L 1.6 TK		TK							$^{\Delta}39$	$^{\Delta}57$	$^{\Delta}64$			
	5.2	9L 2.4 9L 1.2 MM 9L 1.6 SP		SP							$^{\Delta}27$	$^{\Delta}32$	$^{\Delta}50$			
	10.9	65L 4.4 65L 2.3 9NL 4.2		SP							—	—	$^{x}12$			
	64(60)	9L 2.4 9L 0.9 SW 5L 3.1 TC		TC							$^{\Delta}40$	$^{\Delta}64$	$^{\Delta}80$			
	8.3	9L 2.4 5L 2.8 (4.0) 5L 3.1		TC							—	$^{x}11$	$^{x}15$			
	7.4	65L 4.4 5L 3.0 SW		SW							$^{x}1$	$^{x}3$	$^{x}9$			
	2.0	PCM 2.0 TH	T5	TH				$^{\Delta}26$	$^{\Delta}48$	$^{\Delta}67$						
	2.0	2.0		TH				$^{\Delta}48$	$^{\Delta}55$	$^{\Delta}72$						
	8.4	65L 4.4 PL 9L 0.9 SW 65L 3.1 TH		TH	$^{x}10$	$^{x}19$	$^{x}29$									
	4.0	PCM 2.0 TH PCM 2.0 BD		PD				$^{\Delta}19$	$^{\Delta}22$	$^{\Delta}31$						
	4.7	2.0 5L 2.7 BC		BC				$^{\Delta}36$	$^{\Delta}34$	$^{\Delta}60$						
	5.3	2.0 9NL 3.3 DK		DK				$^{\Delta}45$	$^{\Delta}46$	$^{\Delta}67$						
	67(60)	2.0 9L 4.7 NK		NK				—	$^{\Delta}16$	$^{\Delta}20$						
	5.5	2.0 9L 1.1 BC 65L 2.4 PSR		PSR				$^{\Delta}17$	$^{\Delta}34$	$^{\Delta}49$						
	69(60)	2.0 65L 4.9 BKT		BKT				—	$^{\Delta}36$	$^{\Delta}56$						
	5.7	2.0 5L 3.0 CHW		CHW				$^{\Delta}31$	$^{\Delta}46$	$^{\Delta}73$						
	2.0	2.0 PCM — MSK		MSK				—	$^{\Delta}22$	$^{\Delta}26$						
	2.0	2.0 PCM — PPJ		PPJ				—	$^{\Delta}13$	$^{\Delta}20$						
SMP	5.5	PCM 2.0 PKN 9L 2.4 PL 9L 1.1 SW	T7	SW							$^{\Delta}38$	$^{\Delta}37$	$^{\Delta}26$			
	8.4	PCM 2.0 PKN 65L 4.4 PL 65L 2.0 SW		SW							$^{x}33$	—	$^{x}69$			
	9.3	PCM 2.0 PKN 9L 2.4 PL 65L 1.8 SW 5L 3.1 TC		TC							—	—	$^{x}13$			
	9.9	9L 1.8 PS 65L 3.9 PKN 9L 2.2 PL 65L 2.0 SW		SW							$^{x}1$	$^{x}3$	$^{x}9$			
		9NL 65NL 9NL 65NL		SW							50	100	155			
	2.0	PCM 2.0 PKN PCM — LS	T5	TH				$^{\Delta}23$	$^{\Delta}26$	$^{\Delta}38$						
BYP	5.5	PCM 2.0 PKN 9L 2.4 PL 9L 1.1 SW	T7	SW							—	$^{\Delta}21$	$^{\Delta}26$			
	10.0	9L 3.6 65L 4.4 65L 2.0		SW							—	$^{x}2$	$^{x}9$			
	2.0	PCM 2.0 PKN PCM — TH	T5	TH				—	$^{\Delta}16$	$^{\Delta}20$						
PS	5.8	9L 1.2 BN 9L 1.1 PKN 9L 2.4 PL 9L 1.1 SW	T7	SW							$^{\Delta}38$	$^{\Delta}27$	$^{\Delta}26$			
	8.5	9L 1.2 9L 1.1 65L 4.2 65L 2.0		SW							$^{x}30$	$^{x}75$	$^{x}108$			
	8.1	9L 2.3 PKN 9L 2.4 PL 65L 1.8 SW 9L 1.6 TK		TK							—	—	10			
	8.7	9L 2.3 9L 2.4 9L 0.9 5L 3.1 TC		TC							—	$^{x}14$	$^{x}31$			
	10.3	65NL BN 65NL PKN 65NL PL 65NL SW		SW							5	9	16			
	5.4	9L 1.2 BN 65L 2.2 PKN PCM 2.0	T5	TH				$^{\Delta}23$	$^{\Delta}37$	$^{\Delta}44$						
	8.7	9L 2.3 PKN 9L 2.4 PL 9L 0.9 SW 65L 3.1 TH		TH	—	—	$^{x}23$									
BN	5.5	9L 1.3 PKN 9L 2.2 PL 65L 2.0 SW	T7	SW							$^{\Delta}30$	$^{\Delta}55$	$^{\Delta}41$			
	8.4	65L 2.2 65L 4.2 65L 2.0		SW							$^{x}93$	$^{x}36$	$^{x}43$			
	8.4	65L 2.2 9L 2.2 9L 0.9 5L 3.1 TC		TC							—	$^{x}12$	$^{x}17$			
	9.6	3.4 65L 4.2 65L 2.0		SW							$^{x}1$	$^{x}3$	$^{x}9$			
		5NL 65NL 65NL		SW							2	4	6			
	5.6	5L 3.6 PCM 2.0	T5	TH				$^{\Delta}27$	$^{\Delta}37$	$^{\Delta}44$						
	10.5	5L 3.4 9L 2.2 65L 1.8 SW 65L 3.1 TH		TH	$^{x}12$	—	$^{x}13$									
LKB	5.5	PCM 2.0 9L 2.4 9L 1.1 SW	T7	SW							—	$^{\Delta}35$	$^{\Delta}33$			
	10.0	9L 5.8 9L 2.2 65L 2.0		SW							—	$^{x}2$	$^{x}8$			
	2.0	PCM 2.0 PCM —	T5	TH				—	$^{\Delta}21$	$^{\Delta}21$						

PKN

T6 ——— T5 T7

NO (2/2)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS						DESTINATION OFFICE		T5 CABLE 76	T5 CABLE 80	T5 CABLE 90	T5 PCM 76	T5 PCM 80	T5 PCM 90	T7 CABLE 76	T7 CABLE 80	T7 CABLE 90	T7 PCM 76	T7 PCM 80	T7 PCM 90
ON-2	6.2	PCM 2.0	9L 2.2	65L 2.0				T7	SW							—	Δ_{25}	Δ_{34}			
	8.8	" 2.0	65L 4.4	65L 2.0					SW							—	x_{45}	x_{99}			
	9.3	" 2.0	9L 2.4	65L 1.8	5L 3.1				TC							—	—	x_{11}			
	9.6	9L 3.4	65L 4.2	65L 2.0					SW							—	x_{3}	x_{9}			
	2.0	PCM 2.0	PCM —					T5	TH				—	Δ_{36}	Δ_{60}						
	5.6	9L 3.6	" 2.0										—	—	x_{19}						
ON-1	5.9	65L 2.6	9L 2.2	9L 1.1				T7	SW							—	Δ_{38}	Δ_{56}			
	8.8	" 2.6	65L 4.2	65L 2.0					SW							—	x_{54}	x_{159}			
	8.8	" 2.6	9L 2.2	9L 0.9	5L 3.1				TC							—	—	x_{12}			
	0.2	5L 4.0	65L 4.2	65L 2.0					SW							—	x_{3}	x_{9}			
		5NL	65NL	65NL					SW							—	4	6			
	4.8	65L 2.8	PCM 2.0					T5	TH				—	Δ_{34}	Δ_{43}						
	6.2	5L 4.2	" 2.0						TH				—	x_{15}	x_{34}						
	11.2	5L 4.2	" 2.0	5NL 5.0					BC				—	—	x_{11}						
	9.5	5L 4.2	" 2.0	9NL 3.3					DK				—	—	x_{11}						
	9.9	5L 4.2	" 2.0	5L 3.7					CHW				—	—	x_{15}						

T7 ——— SW ——— T1(PTW) T5

NO (1/3)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS						DESTINATION OFFICE		T1 (PTW) CABLE 76	T1 (PTW) CABLE 80	T1 (PTW) CABLE 90	T1 (PTW) PCM 76	T1 (PTW) PCM 80	T1 (PTW) PCM 90	T5 CABLE 76	T5 CABLE 80	T5 CABLE 90	T5 PCM 76	T5 PCM 80	T5 PCM 90
	4.7	5NL 4.7 PTW							PTW	△27	△39	△50									
	4.7	4.7							PTW	×168	×510	×822									
	4.7	4.7						T1	PTWSPS	×6	×19	×31									
	4.7	4.7							PTW	×1	×3	×9									
	4.9	5L 4.9 TH							TH							△126	△156	△174			
	4.9	5L 4.9							TH							△40	△36	△46			
	8.4	5NL 8.4							TH							×333	×264	×381			
	8.4	8.4							TH							×1	×3	×9			
									TH							9	18	28			
	5.3	65L 3.3 TH	PCM 2.0 PD						PD							△26	△28	△40			
	6.9	5L 4.9	PCM 2.0						PD							—	—	×30			
	6.9	4.9	PCM 2.0						PD							×1	×3	×9			
		5NL	9NL						PD							5	10	16			
SW	4.4	65L 3.3	9L 1.1 BC						BC							△45	△38	△34			
	9.9	5L 4.7	5NL 5.2						BC							—	—	×72			
	9.9	5L 4.7	5NL 5.2						BC							×1	×3	×9			
	6.0	5L 4.7	9L 1.3 DK						DK							△20	△25	△24			
	8.2	5L 4.9	9NL 3.3						DK							×78	×63	×90			
		5NL	9NL						DK							7	12	21			
	5.3	65L 3.3	PCM 2.0 NK						NK							—	△18	△22			
	9.2	5L 4.7	9L 4.5					T5	NK							—	×2	×9			
	5.0	9L 1.7	9L 0.9 BC	65L 2.4 PSR					PSR							△20	△38	△26			
	8.0	5L 4.7	9L 0.9	65L 2.4					PSR							—	—	×33			
	8.0	4.7	0.9	2.4					PSR							×1	×3	×9			
		5NL	9NL	65NL					PSR							2	4	6			
	5.6	9L 1.7	9L 1.1 DK	65L 2.8 BKT					BKT							—	△40	△38			
	8.6	5L 4.7	9L 1.1	65L 2.8					BKT							—	—	×36			
		5NL	9NL	65NL					BKT							—	×3	×9			
	5.5	9L 1.7	5L 3.8 CHW						CHW							△25	△28	△33			
	8.5	5L 4.7	5L 3.8						CHW							×81	×99	×186			
	8.5	4.7	3.8						CHW							×1	×3	×9			
		5NL	5NL						CHW							2	4	6			
	5.3	65L 3.3	PCM 2.0 MSK						MSK							—	△24	△29			
		65NL	9NL						MSK							—	×2	×9			
	5.3	65L 3.3	PCM 2.0 PPJ						PPJ							—	△16	△25			
		65NL	9NL						PPJ							—	×2	×9			
	9.3	5L 4.6 SW	5NL 4.7 PTW					T1	PTW	—	×30	×49									
	4.7	9L 1.6 SW	6.5L 3.1 TH						TH							△17	△33	△42			
TK	9.1	5L 4.4	5L 4.7						TH							×23	×36	×53			
	10.8	5L 4.4	6.5L 3.1	9NL 3.3 DK				T5	DK							—	—	×10			
	8.3	9L 1.6	6.5L 2.9	5L 3.8 CHW					CHW							—	—	×15			
	9.8	5NL 5.1 SW	5NL 4.7 PTW					T1	PTW	—	×56	×87									
	6.2	5L 3.1 SW	6.5L 3.1 TH						TH							△26	△48	△58			
TC	10.0	5NL 5.1	5L 4.9						TH							×34	×65	×92			
	9.1	5L 3.1	5L 4.7	9L 1.3 DK				T5	DK							—	×11	×26			
	8.3	5L 3.1	9L 1.4	5L 3.8 CHW					CHW							—	×18	×49			

T7 ——SW——TI TI(SR)

NO (2/3)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		TI CABLE 76	TI CABLE 80	TI CABLE 90	TI PCM 76	TI PCM 80	TI PCM 90	TI (SR) CABLE 76	TI (SR) CABLE 80	TI (SR) CABLE 90	TI (SR) PCM 76	TI (SR) PCM 80	TI (SR) PCM 90
SW	3.3	65L 3.3 KK	TI	KK	△114	△123	△129									
	3.3	" 3.3		KK	△84	△70	△68									
	6.6	65NL 6.6		KK	×630	×456	×426									
	6.6	" 6.6		KKSPS	×20	×20	×20									
	3.3	65L 3.8		KK TOLL	171	183	267									
	6.6	65NL 6.6			×177	×189	×273									
		"		KKTEST	60	66	102									
		"		KKOBS	5	5	5									
	6.6	" 6.6		KK	×73	×100	×110									
		"		KK	52	104	110									
	5.8	65L 3.1 KK 65L 2.7 BP		BP	△25	△26	△33									
	9.5	65NL 6.6 " 2.9		BP	×99	×45	×129									
	9.5	" 6.6 " 2.9		BP	×1	×3	×9									
		" "		BP	2	4	6									
	5.7	65L 3.1 5L 2.6 SS		SS	△17	△28	△38									
	10.0	65NL 6.6 65NL 3.4		SS	×66	×87	×180									
	10.0	" 6.6 " 3.4		SSSPS	×6	×10	×20									
		" "		SS	47	72	145									
	4.2	5L 4.2 SR	TI	SR							△111	△99	△114			
	7.1	5NL 7.1		SR							×990	×846	×1197			
	7.1	5NL 7.1		SRSPS							×30	×36	×48			
		"		SRTKE							1	1	1			
		"		SRMISC							5	5	5			
	7.1	" 7.1		SR							×2	×3	×7			
		"		SR							58	90	179			
TK	3.3	9L 1.6 SW 9L 1.7 KK	TI	KK	△32	△46	△61									
	3.3	9L 1.6 9L 1.7		KK TOLL	•22	•42	•61									
	11.0	5L 4.6 65NL 6.4			×14	×26	×36									
		5NL 65NL		KKTEST	6	14	22									
		" "		KK OBS	3	3	3									
	11.0	5L 4.6 65NL 6.4		KK	×12	×23	×30									
	8.4	5L 4.4 SW 5L 4.0 SR	TI	SR							—	×30	×45			
		5NL 5NL		SR							3	5	10			
TC	6.1	5L 3.1 SW 65L 3.0 KK	TI	KK	△47	△35	△28									
	8(4.0)	5L 3.1 SW 9L 1.7 KK		KK TOLL	•33	•75	•107									
	8.3	5NL 5.1 (33) 65L 3.2			×20	×44	×61									
	8.3	5NL 5.1 65L 3.2		KK	—	×50	×46									
		5NL 65NL		KKTEST	10	28	42									
		" "		KK OBS	3	3	3									
	8.3	5NL 5.1 SW 65L 3.2		KK	×1	×3	×9									
	8.5	5L 3.1 65L 2.8 KK 65L 2.6 BP		BP	—	—	×25									
	9.6	5L 3.1 65L 3.0 65NL 3.4 SS		SS	—	—	×31									
	9.3	5NL 5.1 SW 5L 4.2 SR	TI	SR							×30	×90	×120			

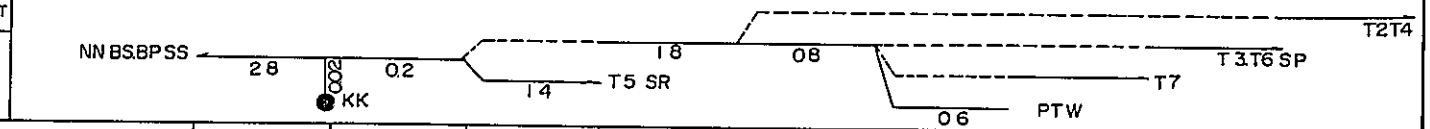
T2 / T4 —— SW —— T5 T7

NO (3/3)

TANDEM AND OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS	DESTINATION OFFICE		T5 CABLE 76	T5 CABLE 80	T5 CABLE 90	T5 PCM 76	T5 PCM 80	T5 PCM 90	T7 CABLE 76	T7 CABLE 80	T7 CABLE 90	T7 PCM 76	T7 PCM 80	T7 PCM 90
RS	20	PCM 20 LS PCM — SW	T7	SW										—	Δ19	Δ34
	105	9L 52 9L 32 PY 9L 21 SW		SW							—	x2	x9			
		9NL 9NL 9NL		SW							10	30	31			
	2.0	PCM 20 LS PCM — TH	T5	TH				—	Δ17	Δ34						
DM	64/60	PCM 20 PY PCM — SW	T7	SW										Δ29	Δ30	Δ41
	76	9L 23 9L 32 PY 9L 21 SW		SW							x3	x5	x10			
		9NL 9NL 9NL		SW							3	5	10			
	40	PCM 20 PY PCM 2.0	T5	TH				Δ24	Δ28	Δ41						
NWW	58	9L 16 NWB 9L 2.1 PY 9L 21 SW	T7	SW							Δ38	Δ33	Δ44			
	7.7	9L 16 9L 21 65L 3.8		SW							x1	x3	x9			
	5.9	9L 16 NWB 9L 23 PY PCM 20 TH	T5	TH				Δ26	Δ26	Δ37						
BK	4.5	9L 2.4 PY 9L 21 SW	T7	SW							Δ40	Δ25	Δ35			
	10.9	9L 26 65NL 83		SW							x51	—	x36			
	10.9	9L 26 65NL 83		SW							x1	x3	x9			
		9NL 65NL		SW							2	4	6			
	46	9L 26 PY PCM 20 TH	T5	TH				Δ27	Δ19	Δ29						
			SUB TOTAL	4db												
				6db				77	90	141	78	58	79	29	49	75
				11db							56	13	73			
				NL							15	39	47			
			GRAND TOTAL					77	90	141	149	110	199	29	49	75

(KK)

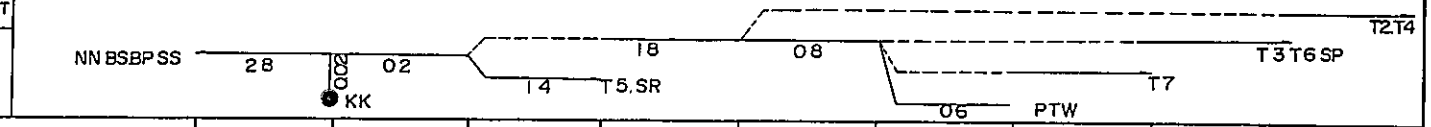
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	KK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)					'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		SR	3.6				SR	5NL 3.6			KK TOLL	•171	•198	•294	•171	•198	•294	SR																
		"	3.6					·5NL 3.6				X177	X204	X300	X177	X204	X300	"																
		"						5NL			TEST OBS.etc	79	91	133	79	91	133	"																
		"	3.6					5NL 3.6			KK	•456	•537	•624	•456	•537	•624	"																
		"	3.6					5NL 3.6			KK	△81	△93	△111	△81	△93	△111	"																
		"	3.6					5NL 3.6			KK	X606	X510	X450	X606	X510	X450	"																
											KK-SR •	627	735	918	627	735	918																	
											△	81	93	111	81	93	111																	
											X	783	714	750	783	714	750																	
											NL	79	91	133	79	91	133																	
		BP	3.8			BP ·65 1.2	SS	5L 2.6	•47	•47	•89	KK TOLL																						
		"	7.1			·5NL 2.7		·5NL 4.4	X29	X29	X51																							
		"				5NL		6.5NL	24	24	42	TEST OBS.etc																						
		"	3.8			6.5L 1.2		5L 2.6	•160	•139	•213	KK																						
		"	4.2			·5L 1.6		·5L 2.6	△25	△25	△34	KK																						
	T1	"	6.1			·5NL 2.7		6.5NL 3.4	X88	X58	X72	KK																						
									207	236	302	•																						
									25	25	34	△	KK-BP																					
									117	87	123	X																						
									24	24	42	NL																						
		PTW	3.1				PTW	·5L 3.1				KK TOLL	•33	•120	•203				•33	•120	•203	•33	•120	•203	•33	•120	•203	PTW						
		"	5.1					5NL 5.1					X20	X68	X112				X20	X68	X112	X20	X68	X112	X20	X68	X112	•						
		"						5NL			TEST OBS.etc	18	56	94				18	56	94	18	56	94	18	56	94	"						
		"	3.1					·5L 3.1			KK	•132	•204	•229				•132	•204	•229	•132	•204	•229	•132	•204	•229	•						
		"	5.1					·5NL 5.1			KK	△30	△44	△57				△30	△44	△57	△30	△44	△57	△30	△44	△57	•						
		"	3.1					5NL 5.1			KK	X94	X276	X298				X94	X276	X298	X94	X276	X298	X94	X276	X298	•						
											KK-PTW •	165	324	432				165	324	432	165	324	432	165	324	432							
											△	30	44	57				30	44	57	30	44	57	30	44	57							
											X	114	344	410				114	344	410	114	344	410	114	344	410							
											NL	18	56	94				18	56	94	18	56	94	18	56	94							
		SS	3.4				SS	·6.5NL 3.4	•33	•57	•124	KK TOLL																						
		"	3.4					·6.5NL 3.4	X20	X34	X70																							
		"						·6.5NL	18	28	58	TEST OBS.etc																						
		"	3.4					6.5NL 3.4	•149	•198	•189	KK																						
		"	3.4					6.5NL 3.4	△56	△22	△33	KK																						
		"	3.4					6.5NL 3.4	X26	X52	X76	KK																						
									182	255	313	•																						
									56	22	33	△	KK-SS																					
									46	86	146	X																						
									18	28	58	NL																						

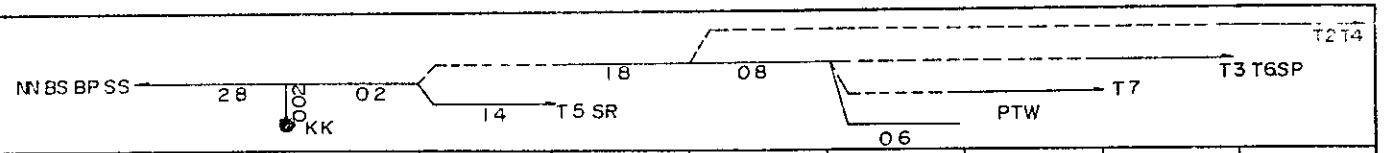
(KK)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	KK



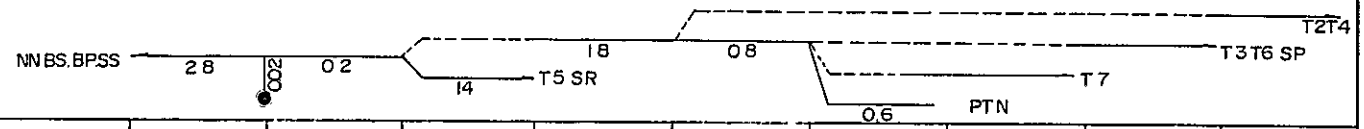
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
GENERAL CIRCUIT	T2	PY	34				PY 65L 34	KK TOLL TEST OBSete KK			·90	·90	·104				·90	·90	·104													·90	·90	·104	PY
		〃	6.7				65NL 6.7				X54	X54	X63				X54	X54	X63													X54	X54	X63	〃
		〃					65NL				34	34	40				34	34	40													34	34	40	〃
		〃	50				5L 50				Δ95	Δ51	Δ66				Δ95	Δ51	Δ66													Δ95	Δ51	Δ66	〃
		〃	67				·65NL 67	KK			X166	X114	X44				X166	X114	X44													X166	X114	X44	〃
		PY	50				5L 50	KK			Δ76	Δ58	Δ76				Δ76	Δ58	Δ76													Δ76	Δ58	Δ76	PY
								KK-PY		·	90	90	104				90	90	104													90	90	104	
										Δ	171	109	142				171	109	142													171	109	142	
										X	220	168	107				220	168	107													220	168	107	
										NL	34	34	40				34	34	40													34	34	40	
		BS	2.7			BS 9L 17	SS 9L 1.0	57	66	138																									
		〃	78			9NL 44	65NL 3 4	X34	X39	X77																									
		〃				9NL	·65NL	23	27	59																									
		〃	4.3			9L 19	9NL 24	Δ33	Δ30	Δ44																									
		〃	7.8			9NL 44	65NL 34	X88	X66	X88																									
								57	66	138	·	KK-BS																							
								33	30	44	Δ																								
								122	105	165	X																								
								23	27	59	NL																								
		IM						KK TOLL TEST OBSete KK			·38	·80	·129				·38	·80	·129													·38	·80	·129	IM
		〃	101			IM 5NL 51	PY 5L 5.0				X23	X46	X73				X23	X46	X73													X23	X46	X73	〃
		〃				5NL	5NL				15	33	55				15	33	55													15	33	55	〃
		〃	52			65L 20	65L 3.2				Δ44	Δ29	Δ37				Δ44	Δ29	Δ37													Δ44	Δ29	Δ37	〃
		〃	101			5NL 8.1	5L 5.0	KK			X44	X66	X68				X44	X66	X68													X44	X65	X68	〃
								KK-IM		·	38	80	129				38	80	129													38	80	129	
										Δ	44	29	37				44	29	37													44	29	37	
										X	67	112	141				67	112	141													67	112	141	
										NL	15	33	55				15	33	55													15	33	55	
		LP1	32			LP1 9L 15	PY 9L 15	KK TOLL TEST OBSete KK			·33	·66	·120				·33	·66	·120													·33	·66	·120	LP1
		〃	110			65NL6.0	5L 50				X20	X39	X68				X20	X39	X68													X20	X39	X68	〃
		〃				·65NL	5NL				13	27	51				13	27	51													13	27	51	〃
		〃	61			65L 29	65L 3.2				Δ35	Δ39	Δ51				Δ35	Δ39	Δ51													Δ35	Δ39	Δ51	〃
		〃	110			·65NL60	5L 50	KK			X48	X70	X82				X48	X70	X82													X48	X70	X82	〃
								KK-LP1		·	33	66	120				33	66	120													33	66	120	
										Δ	35	39	51				35	39	51													35	39	51	
										X	68	109	150				68	109	150													68	109	150	
										NL	13	27	51				13	27	51													13	27	51	
		LP2	46(40)		LP2 9L 15	LP1 ·9L 1.4	PY 9L 1.7	KK TOLL TEST OBS ete KK			·22	·52	·80				·22	·52	·80													·22	·52	·80	LP2
		〃	90		9 15	65L 2.7	5L 4.8				X14	X31	X46				X14	X31	X46													X14	X31	X46	〃
		〃			9NL	65NL	5NL				9	21	33				9	21	33													9	21	33	〃
		〃	59		9L 15	65L 27	9L 17				Δ40	Δ37	Δ25				Δ40	Δ37	Δ25													Δ40	Δ37	Δ25	〃
		〃	9.0		9L 15	65L 27	5L 4.8	KK			—	X40	X20				—	X40	X20													—	40	20	〃
								KK-LP2		·	22	52	80				22	52	80													22	52	80	
										Δ	40	37	25				40	37	25													40	37	25	
										X	14	71	66				14	71	66													14	71	66	
										NL	9	21	33				9	21	33													9	21	33	

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	KK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
GENERAL CIRCUIT		NH	39			NW 9L 29	SS 9L 10	•22	•33	•57	KK TOLL																		
		•	105			9NL 81	9NL 24	X14	X20	X34																			
		•				9NL	65NL	9	13	23	TEST OBSete																		
		•	39			9NL 29	9NL 10	△45	△42	△29	KK																		
		•	105			9NL 81	9NL 24			X20	KK																		
								22	33	57	•	KK-NN																	
								45	42	29	△																		
								14	20	34	X																		
								9	13	23	NL																		
		PL	37				PL 5L 37				KK TOLL	•114	•122	•218				•114	•122	•218	•114	•122	•218				•114	•122	•218	PL
		•	48				65NL48					X118	X126	X224				X118	X126	X224	X118	X126	X224				X118	X126	X224	•
		•					5NL				TEST OBSete	44	48	92				44	48	92	44	48	92				△44	△48	△92	•
		•	37				5L 37				KK	△76	△74	△98				△76	△74	△98	△76	△74	△98				△76	△74	△98	•
		•	37				5L 37				KK	X344	X256	X256				X344	X256	X296	X344	X256	X296				X344	X256	X296	•
		PL	48				65NL48				KK	△48	△54	△56				△48	△54	△56	△48	△54	△56				48	54	56	PL
											•	114	122	218				114	122	218	114	122	218				114	122	218	
											△	124	128	154				124	128	154	124	128	154				124	128	154	
											X	462	382	520				462	382	520	462	382	520				462	382	520	
											NL	44	48	92				44	48	92	44	48	92				44	48	92	
		MM	37			MM 9L 14	PL 65L 23				KK TOLL	•57	•57	•107				•57	•57	•107	•57	•57	•107				•57	•57	•107	MM
		•	102			5L 40	5NL 62					X34	X34	X61				X34	X34	X61	X34	X34	X61				X34	X34	X61	•
		•				5NL	5NL				TEST OBSete	23	23	45				23	23	45	23	23	45				23	23	45	•
		•	60			65L 25	5L 35				KK	△34	△33	△35				△34	△33	△35	△34	△33	△35				△34	△33	△35	•
		•	102			5L 40	5NL 62				KK	X90	X58	X74				X90	X58	X74	X90	X58	X74				X90	X58	X74	•
	T3										•	57	57	107	KK-MM			57	57	107	57	57	107				57	57	107	
											△	34	33	35				34	33	35	34	33	35				34	33	35	
											X	124	92	135				124	92	135	124	92	135				124	92	135	
											NL	23	23	45				23	23	45	23	23	45				23	23	45	
		ASD	58(40)			ASD 5L 35	PL 65L 23				KK TOLL	•33	•102	•159				•33	•102	•159	•33	•102	•159				•33	•102	•159	ASD
		•	99			5NL 62	5L 37					X20	X59	X89				X20	X59	X89	X20	X59	X89				X20	X59	X89	•
		•				5NL	5NL				TEST OBSete	13	43	69				13	43	69	13	43	69				13	43	69	•
		•	58			5L 35	65L 23				KK	△36	△49	△60				△36	△49	△60	△36	△49	△60				△36	△49	△60	•
		•	99			5NL 62	5L 37				KK	X78	X192	X192				X78	X192	X192	X78	X192	X192				X78	X192	X192	•
											•	33	102	159	KK-ASD			33	102	159	33	102	159				33	102	159	
											△	36	49	60				36	49	60	36	49	60				36	49	60	
											X	98	251	281				96	251	281	96	251	281				96	251	281	
											NL	13	43	69				13	43	69	13	43	69				13	43	69	
		SKV	33			SKV 65L 20	PL 9L 13				KK TOLL		•91	•138					•91	•138		•91	•138					•91	•138	SKV
		•	90			5NL 53	5L 37						X53	X77					X53	X77		X53	X77					X33	X77	•
		•				5NL	5NL				TEST OBSete		39	59					39	59		39	59					39	59	•
		•	55			65L 20	5L 35				KK		△52	△64					△52	△64		△52	△64					△52	△64	•
		•	90			5NL 53	5L 37				KK		X174	X166					X174	X166		X174	X166					X174	X166	•
											•		91	138	KK-SKV				91	138		91	138					91	138	
											△		52	64					52	64		52	64					52	64	
											X		227	243					227	243		227	243					227	243	
											NL		39	59					39	59		39	59					39	59	

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	KK

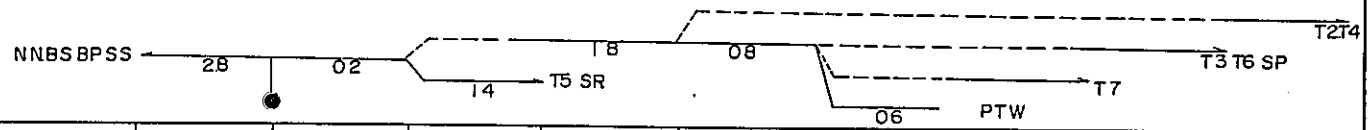


KIND OF CIRCUIT	TANDEM NO.	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (2 b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
GENERAL CIRCUIT		LS	2.0				LS PCM 2.0																												
			6.6			LS 9L 3.4	SY 65L 3.2																												
		"				9NL	65NL																												
		"	2.0				LS PCM 2.0																												
		LS	2.0				2.0																												
		NWW	54(4.0)	NWW 9L 1.6	NWb 9L 2.1	RY 33 9L 1.7																													
		"	7.1	9L 1.6	9L 2.3	65L 3.2																													
		"		9NL	9NL	65NL																													
		"	5.4	9L 1.6	9L 2.1	9L 1.7																													
		"	7.1	9L 1.6	9L 2.3	65L 3.2																													
	T4	DM	9.0		DM PCM 2.0	LS PCM 2.0																													
		"	10.6	DM 9L 2.3	LS 9L 3.2	DY 65L 3.2																													
		"		9NL	9NL	65NL																													
		"	6.4		DM PCM 2.0	LS PCM																													
		BK	4.1		BK 9L 2.4	PY 9L 1.7																													
		"	9.3		9L 2.6	65NL 6.7																													
		"			9NL	65NL																													
		"	5.6		9L 2.4	65L 3.2																													
		"	9.3		9L 2.6	65NL 6.7																													
		RS	3.9		RS PCM 2.0	DY 9L 1.9																													
		"	10.1	RS 9L 5.2	LS 9L 3.2	9 1.7																													
		"		9NL	9NL	9NL																													
		"	2.0		RS PCM 2.0	LS PCM 2.0																													
		BCH	3.9		BCH PCM 2.0	DY 9L 1.9																													
		"	9.6	BCH 9L 4.7	LS 9L 3.2	PY 9L 1.7																													
		"		9NL	9NL	9NL																													
		"	2.0		BCH PCM 2.0	LC PCM —																													
		PK	2.0		PK PCM 2.0	LS PCM —																													
		"	7.8	PK 9L 2.9	LS 9L 3.2	PY 9L 1.7																													
		"		9NL	9NL	9NL																													
		"	2.0		PK PCM 2.0	LS PCM —																													

		'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
KK-LS	KK TOLL	•17	•25	•47							•17	•25	•47																			•17	•25	•47	LS
		X12	X17	X30							X12	X17	X30																			X12	X17	X30	"
	TEST OBSete	7	11	19							7	11	19																			7	11	19	"
	KK	△30	△44	△54							△30	△44	△54																			△30	△44	△54	"
	KK	△42	△86	△92							△42	△86	△92																			42	86	92	LS
	•	17	25	47							17	25	47																			17	25	47	
	△	72	130	146							72	130	146																			72	130	146	
	X	12	17	30							12	17	30																			12	17	30	
	NL	7	11	19							7	11	19																			7	11	19	
KK-NWW	KK TOLL	•33	•33	•47							•33	•33	•47																			•33	•33	•47	NWW
		X20	X20	X29							X20	X20	X29																			X20	X20	X29	"
	TEST OBSete	13	13	19							13	13	19																			13	13	19	"
	KK	△57	△51	△52							△57	△51	△52																			△57	△51	△52	"
	KK	X36	X26	X24							X36	X26	X24																			X36	X26	X24	"
	•	33	33	47							33	33	47																			33	33	47	
	△	57	51	52							57	51	52																			57	51	52	
	X	56	46	53							56	46	53																			56	46	53	
	NL	13	13	19							13	13	19																			13	13	19	
KK-PM	KK TOLL	•22	•27	•40							•22	•27	•40																			22	27	40	DM
		X14	X17	X25							X14	X17	X25																			X14	X17	X25	"
	TEST OBSete	9	11	17							9	11	17																			9	11	17	"
	KK	△51	△49	△55							△51	△49	△55																			△51	△49	△55	"
KK-BK	KK TOLL	•33	•23	•35							•33	•23	•35																			•33	•23	•35	BK
		X20	X15	X22							X20	X15	X22																			X20	X15	X22	"
	TEST OBS. ete	13	11	15							13	11	15																			13	11	15	"
	KK	△42	△33	△38							△42	△33	△38																			△42	△33	△38	"
	KK	X60	—	—							X60	—	—																			X60			"
	•	33	23	35							33	23	35																			33	23	35	
	△	42	33	38							42	33	38																			42	33	38	
	X	80	15	22							80	15	22																			80	15	22	
	NL	13	11	15							13	11	15																			13	11	15	
KK-RS	KK TOLL	•9	•17	•33							•9	•17	•33																			•9	•17	•33	RS
		X7	X11	X20							X7	X11	X20																			X7	X11	X20	"
	TEST OBSete	5	7	13							5	7	13																			5	7	13	"
	KK	—	△37	△59							—	△37	△59																			—	△37	△59	"
KK-BCH	KK TOLL	•9	•25	•40							•9	•25	•40																			•9	•25	•40	BCH
		X7	X16	X25							X7	X16	X25																			X7	X16	X25	"
	TEST OBSete	5	11	17							5	11	17																			5	11	17	"
	KK	—	△43	△49							—	△43	△49																			—	△43	△49	"
KK-RK	KK TOLL	—	•25	•38							—	25	38																			—	25	38	DK
		—	X16	X23							—	X16	X23																			—	X16	X23	"
	TEST OBSete	—	11	15							—	11	15																			—	11	15	"
	KK	—	△48	△59							—	△48	△59																			—	△48	△59	"

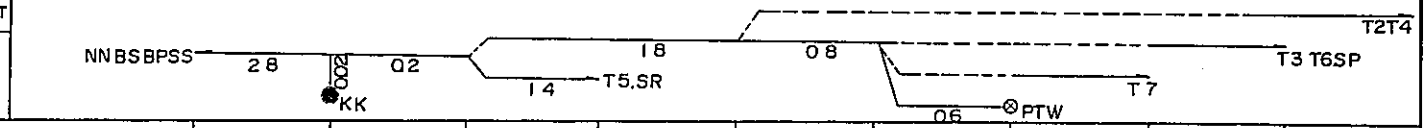
(KK)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	KK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)			'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
GENERAL CIRCUIT	T5	RID	74(4.0)	RID 9L 27	LS 9L 3.2	PY 9L 1.7	KK-RID	KK TOLL		9	24	42				9	24	42													9	24	42	RID
		"	10.6	9L 2.5	9L 3.4	9NL 4.7				7	15	26				7	15	26													7	15	26	"
		"	4	9NL	9NL	9NL		TEST OBS.etc		2	11	17				2	11	17													2	11	17	"
		"	4.7	RID 9L 27	LS PCM 2.0			KK		—	41	39				—	41	39													—	41	39	"
		SDM	7.2(4.0)	SDM 9L 2.3	LS 9L 3.2	PY 9L 1.7	KK-SDM	KK TOLL		—	25	33				—	25	33													—	25	33	SDM
		"	10.5	9L 4.1	9L 3.2	65L 3.2				—	16	20				—	16	20													—	16	20	"
		"		65NL	9NL	65NL		TEST OBS.etc		—	11	13				—	11	13													—	11	13	"
		"	4.5	SFM 9L 2.5	LS PCM 2.0			KK		—	45	45				—	45	45													—	45	45	"
		DJN	3.9	PTN PCM 2.0	PY 9L 1.9		KK-PTN	KK TOLL		9	17	33				9	17	33													9	17	33	PTN
		"	8.7	PCM 2.0	65NL 6.7					7	11	20				7	11	20													7	11	20	"
		"		PTN 9NL	LS 9NL	PY 65NL		TEST OBS.etc		5	9	13				5	9	13													5	9	13	"
		"	2.0			PTN PCM 2.0		KK		—	31	52				—	31	52													—	31	52	"
		TH	3.2			TH 6.3 3.2		KK		102	111	168	102	111	168				TH															
		"	6.3			65NL 6.3		TOLL		59	63	94	59	63	94				"															
		"				65NL		TEST OBS.etc		43	47	73	43	47	73				"															
		"	3.2			65L 3.2		KK		36	33	39	36	33	39				"															
		"	6.3			65NL 6.3		KK		168	124	120	168	124	120				"															
		TH	3.2			65L 3.2		KK		74	96	100	74	96	100				TH															
							KK-TH			102	111	168	102	111	168																			
									Δ	110	129	139	110	129	139																			
									X	227	187	214	227	187	214																			
									NL	43	47	73	43	47	73																			
		PD	3.8		PD PCM 2.0	TH 9L 1.8	KK-PD	KK TOLL		22	27	42	22	27	42				PD															
		"	8.3		PCM 2.0	65NL 6.3				14	17	26	14	17	26				"															
		"			9L	65NL		TEST OBS.etc		9	11	17	9	11	17				"															
		"	5.2		PCM 2.0	65L 3.2		KK		37	42	40	37	42	40				"															
		BC	2.7		BC 9L 1.1	TH 9L 1.6	KK-BC	KK TOLL		38	38	71	38	38	71				BC															
		"	8.2		5NL 5.0	65 3.2				23	23	41	23	23	41				"															
		"			5NL	65NL		TEST OBS.etc		15	15	29	15	15	29				"															
		"	4.5		5L 2.9	9L 1.6		KK		56	43	34	56	43	34				"															
		DK	2.9		DK 9L 1.3	TH 9L 1.6	KK-DK	KK TOLL		47	52	80	47	52	80				DK															
		"	9.9		9NL 3.3	65NL 6.3				29	31	46	29	31	46				"															
		"			9NL	65NL		TEST OBS.etc		19	21	33	19	21	33				"															
		"	5.1		9NL 3.3	9L 1.8		KK		50	56	37	50	56	37				"															
		"	9.9		9NL 3.3	65NL 6.3		KK		40	—	—	40	—	—				"															
										47	52	80	47	52	80																			
									Δ	50	56	37	50	56	37																			
									X	69	31	46	69	31	46																			
									NL	19	21	33	19	21	33																			
		NK	6.3(4.0)		NK 9L 4.5	TH 9L 1.8		KK TOLL		9	17	22	9	17	22				NK															
		"	10.8		9L 4.5	65NL 6.3				11	11	14	11	11	14				"															
		"			9NL	65NL		TEST OBS.etc		5	7	9	5	7	9				"															
		"	6.3(4.0)		9L 4.5	9L 1.8		KK		—	23	31	—	23	31				"															

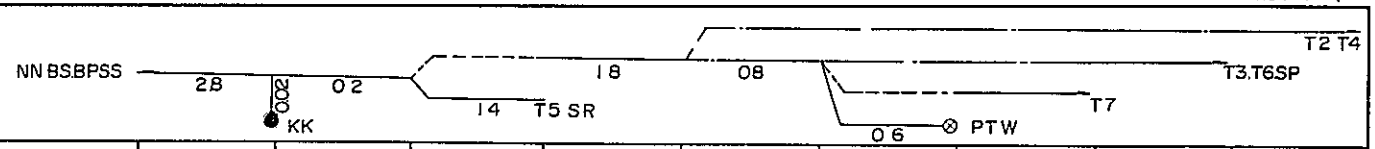
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	KK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)			'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
GENERAL CIRCUIT	T5	PSR	49(40)	PSK 65L 24	BC 9L 09	TH 9L 16	KK TSLL TEST OBSete KK																					
		"	67	65L 24	9L 11	65NL 32																						
		"		65NL	9NL	65NL																						
		"	49	65L 24	9L 09	9L 16																						
		BKT	55(40)	BKT 65L 28	BK 9L 11	TH 9L 16	KK TOLL TEST OBSete KK																					
		"	104	65L 28	9L 13	65NL 63																						
		"		65NL	9NL	65NL																						
		"	55	65NL 29	9L 11	9L 16																						
		CHW	54(40)	CHW	5L 38	TH 9L 16	KK TOLL TEST OBSete KK																					
		"	98		5NL 66	65L 32																						
		"			5NL	65NL																						
		"	54		5L 38	9L 16																						
		"	98		5NL 66	65L 32																						
		MSK	38	MSK	PCM 20	TH 9L 18	KK TOLL TEST OBSete KK																					
		"	108		9L 45	65NL 63																						
		"			9NL	65NL																						
		"	52		PCM 20	65L 32																						
		PPJ	38	PRJ	PCM 20	TH 9L 18	KK TOLL TEST OBSete KK																					
		"	52		PCM 20	65L 32																						
		"			9NL	65NL																						
		"	52		PCM 20	TH 65L 32																						
		PKN	20	PKW	PCM 20		KK TOLL TEST OBSete KK																					
		"	79	PKN	65L 44	PL 5L 35																						
		"			65NL	5NL																						
		"	20		PKN	PCM 20																						
		"	79	PKN	65L 44	PL 5L 35																						
		PRN	20			PCM 20																						
	T6	CP	35	CP	9L 22	PL 9L 13	KK TOLL TEST OBSete KK																					
		"	86		5L 51	5L 35																						
		"			5NL	5NL																						
		"	56		65L 33	65L 23																						
		"	86		5L 51	5L 35																						

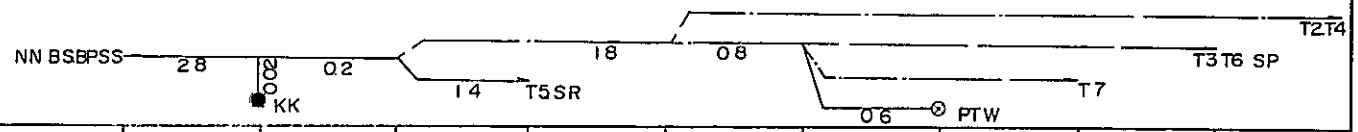
		'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
KK-PSP	KK TSLL TEST OBSete KK	17	38	57	17	38	57				PSR															
		11	13	34	11	23	34				"															
		7	15	23	7	15	23				"															
		25	43	61	25	43	61				"															
KK-BKT	KK TOLL TEST OBSete KK	—	40	75	—	40	75				BKT															
		—	25	44	—	25	44				"															
		—	17	31	—	17	31				"															
		—	53	47	—	53	47				"															
KK-CHW	KK TOLL TEST OBSete KK	33	51	98	33	51	98				CHW															
		20	31	56	20	31	56				"															
		13	21	41	13	21	41				"															
		33	40	45	33	40	45				"															
		26	30	38	26	30	38				"															
		33	51	98	33	51	98																			
		33	40	45	33	40	45																			
		46	61	94	46	61	94																			
		13	21	41	13	21	41																			
KK-MSK	KK TOLL TEST OBSete KK	—	23	29	—	23	29				MSK															
		—	15	19	—	13	19				"															
		—	11	13	—	11	13				"															
		—	33	41	—	33	41				"															
KK-PRJ	KK TOLL TEST OBSete KK	—	15	26	—	15	26				PPJ															
		—	10	17	—	10	17				"															
		—	7	11	—	7	11				"															
		—	22	40	—	22	40				"															
KK-PKN	KK TOLL TEST OBSete KK	33	66	102	33	66	102	33	66	102	33	66	102							33	66	102	PNN			
		21	40	60	21	40	60	21	40	60	21	40	60							21	40	60	"			
		13	27	43	13	27	43	13	27	43	13	27	43							13	27	43	"			
		38	37	34	38	37	34	38	37	34	38	37	34							38	37	34	"			
			22	22		22	22		22	22		22	22								22	22	"			
		92	132	134	82	132	134	92	132	134	92	132	134							92	132	134	PKK			
		33	66	102	33	66	102	33	66	102	33	66	102							33	66	102				
		130	168	168	130	169	168	130	169	168	130	169	168							130	169	168				
		21	62	82	21	62	82	21	62	82	21	62	82							21	62	82				
		13	27	43	13	27	43	13	27	43	13	27	43							13	27	43				
KK-CP	KK TOLL TEST OBSete KK	114	114	136				114	114	136	114	114	136							114	114	136	CP			
		68	68	80				68	68	80	68	68	80							68	68	80	"			
		43	43	55				43	43	55	43	43	55							43	43	55	"			
		94	104	94				94	104	94	94	104	94							94	104	94	"			
		160	76	60				160	76	60	160	76	60							160	76	60	"			
		114	114	136				114	114	136	114	114	136							114	114	136				
		94	104	94				94	104	94	94	104	94							94	104	94				
		228	144	140				228	144	140	228	144	140							228	144	140				
		43	43	55				43	43	55	43	43	55							43	43	55				

TANDEM	SECTION OF TRANSMISSION CIRCUIT
TI	KK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)					'76	'80	'90		'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
GENERAL CIRCUIT	T6	BN	35			BN 9L 15	PKN PCM 2.0					KK TOLL TEST OBS etc KK	·57	·57	84				·57	·57	·84	·57	·57	·84				·57	·57	·84	BN
		"	87		BN 65L 22	PKN 65L 4.2	PL ·65L 2.3						X34	X34	X49				X34	X34	X49	X34	X34	X49				X34	X34	X49	"
		"			·65NL	65NL	65NL						23	23	35				23	23	35	23	23	35				23	23	25	"
		"	56			BN 5L 3.6	PKN PCM 2.0						△63	△48	△57				△63	△48	△57	△63	△48	△57				△53	△43	△57	"
		"	87		BN 65L 22	PKN 65L 4.2	PL 65L 2.3						X22						X22			X22						X22			"
								KK-BN	KK •				57	57	84				57	57	84	57	57	84				57	57	84	
									△				63	48	57				63	48	57	63	48	57				63	48	57	
									X				56	34	49				56	34	49	56	34	49				56	34	49	
									NL				23	23	35				23	23	35	23	23	35				23	23	35	
			3.9			KC PCM 2.0	PY 9L 1.9					KK TOLL TEST OBS etc KK	·47	·61	·89				·47	·61	·89	·47	·61	·89				·47	·61	·89	KC
		"	9.0		KC 65L 3.4	MM 9L 2.1	PL 5L 3.5						X29	X36	X51				X29	X36	X51	X29	X36	X51				X29	X36	X51	"
		"			65NL	9NL	·65NL						19	25	37				19	25	37	19	25	37				19	23	37	"
		"	3.9			KC PCM 2.0	PY ·9L 1.9						△61	△68	△84				△61	△68	△84	△61	△68	△84				△61	△68	△84	"
			9.0		KC 65L 3.4	9L 2.1	PL 5L 3.5						X48	X24	X22				X48	X24	X22	X48	X24	X22				X48	X24	X22	"
								KK-KC	KK •				47	61	89				47	61	89	47	61	89				47	61	89	
									△				61	68	84				61	68	84	61	68	84				61	68	84	
									X				77	60	73				77	60	73	77	60	73				77	60	73	
									NL				19	23	37				19	25	37	19	25	37				19	25	37	
		PS	5.7(4.0)	PS 9L 1.2	EN 9L 1.1	PKN 9L 2.4	PL ·9L 1.0					KK TOLL TEST OBS etc KK	·33	·57	·84				·33	·57	·84	·33	·57	·84				·33	·57	·84	PS
		"	8.8	65L 2.1	65L 2.0	·9L 2.4	65L 2.3	KK-AS					X20	X34	X49				X20	X34	X49	X20	X34	X49				X20	X34	X49	"
		"		65NL	65NL	9NL	65NL						13	23	35				13	23	35	13	23	35				13	23	35	"
		"	5.4		PS 9L 1.2	BN 65L 2.2	PKN PCM 2.0						△37	△49	△60				△37	△49	△60	△37	△49	△60				△37	△49	△60	"
		SMP	2.0			SMP PCM 2.0	PKN PCM —					KK TOLL TEST OBS etc KK	·33	·38	·56				·33	·38	·56	·33	·38	·56				·33	·38	·56	SMP
		"	10.4	SMP 9L 1.8	PS 9L 2.1	PKN 65L 4.2	PL 65L 2.3	KK-SMP					X20	X23	X33				X20	X23	X33	X20	X23	X33				X20	X23	X33	"
		"		9NL	9NL	65NL	65NL						13	15	23				13	15	23	13	15	23				13	15	23	"
		"	2.0			SKP PCM 2.0	PKN PCM —						△37	△40	△45				△37	△40	△45	△37	△40	△45				△37	△40	△45	"
		ON2	2.0			ON2 PCM 2.0	PKN PCM —					KK TOLL TEST OBS etc KK		·35	·75					·35	·75		·35	·75					·35	·75	ON2
		"	7.9		ON2 9L 3.4	PKN 9L 2.2	PL 65L 2.3	KK-ON2						X22	X44					X22	X44		X22	X44					X22	X44	"
		"			9NL	·9NL	·65NL							15	31					15	31		15	31					15	31	"
		"	2.0			ON2 PCM 2.0	PKN PCM —							△32	△40					△32	△40		△32	△40					△32	△40	"
		ONI	6.1(4.0)	ONI 65L 2.6	PKN 9L 2.2	PL 9L 1.3						KK TOLL TEST OBS etc KK		·47	·102					·47	·102		·47	·102					·47	·102	ONI
		"	9.1	ONI 65L 2.6	·65L 4.2	65L 2.3		KK-ONI						X29	X59					X29	X59		X29	X59					X29	X59	"
		"		65L	·65NL	65NL								19	43					19	43		19	43					19	43	"
		"	4.8			ON2 65L 2.8	PKN PCM 2.0							△51	△69					△51	△69		△51	△69					△51	△69	"
		HM	10.7			HM 65L 4.5	PL ·5NL 6.2					KK TOLL TEST OBS etc KK	·47	·84	·155				·47	·84	·155	·47	·84	·155				·47	·84	·155	HM
		"	3.8			9L 2.5	9L 1.3						X29	X49	X87				X29	X49	X87	X29	X49	X87				X29	X49	X87	"
		"				65NL	5NL						19	35	67				19	35	67	19	35	67				19	35	67	"
		"	6.0			9L 2.5	·5L 3.5						△41	△43	△53				△41	△43	△53	△41	△43	△53				△41	△43	△53	"
		"	10.7			65L 4.5	·5L 6.2						X50	X62	X72				X50	X62	X72	X50	X62	X72				X56	X62	X72	"
								KK-HM	KK •				47	84	155				47	84	155	47	84	155				47	84	155	
									△				41	43	53				41	43	53	41	43	53				41	43	53	
									X				79	111	159				79	111	159	79	111	159				79	111	159	
									NL				19	35	67				19	35	67	19	35	67				19	35	67	

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	KK

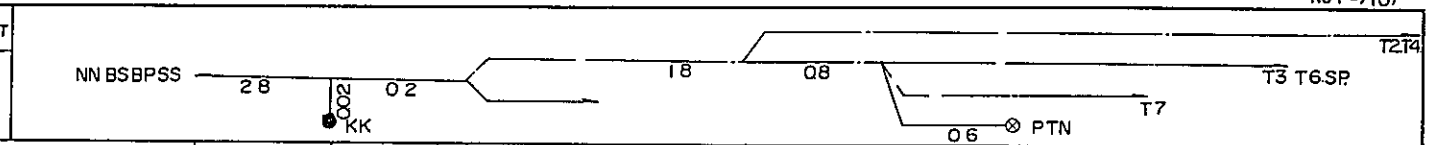


KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)					'76	'80	'90				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90		
GENERAL CIRCUIT	T6	BYP	20				BYP PCM 20	PKN PCM				KK-BYP	KK	TOLL	—	˙21	˙27				—	˙21	˙27	— ˙21	˙27				— ˙21	˙27	BYP
		"	83		EYP 9L 36	PKN 9L 24		PL 65L 23							—	X14	X17				—	X14	X17	— X14	X17				— X14	X17	"
		"			9NL	9NL		65L						TEST	—	9	11				—	9	11	— 9	11				— 9	11	"
		"	20			BYP PCM 20		PKN PCM —						OBS.ete	—	△23	△29				—	△23	△29	— △23	△29				— △23	△29	"
		LKB	20			LKB PCM 20		PKN PCM —					KK		—	˙19	˙19				—	˙19	˙19	— ˙19	˙19				— ˙19	˙19	LKB
		"	9.3		LKB 9L 58	PKN 9L 2.2		PL 9L 1.3				KK-LKB		TOLL	—	X13	X13				—	X13	X13	— X13	X13				— X13	X13	"
		"			9NL	9NL		9NL						TEST	—	9	9				—	9	9	— 9	9				— 9	9	"
		"	20			LKB PCM 20		PKN PCM —						OBS.ete	—	△39	△38				—	△39	△38	— △39	△38				— △39	△38	"
		SW	33					SW 65L 33					KK		˙171	˙183	˙267				˙171	˙183	˙267	˙171 ˙183	˙267				SW		
		"	66					65NL 66						TOLL	X177	X189	X273				X177	X189	X273	X177 X189	X273				X177 X189	X273	"
		"						65NL						TEST	65	71	107				65	71	107	65 71	107				65 71	107	"
		"	33					65L 33						OBS.ete	△14	△23	△29				△14	△23	△29	△14 △23	△29				△14 △23	△29	"
		"	66					65NL 66					KK		X630	X456	X426				X630	X456	X426	X630 X456	X426				X630 X456	X426	"
		SW	3.3					65L 33					KK		△84	△70	△68				△84	△70	△68	△84 △70	△68				△84 △70	△68	SW
		SW(SPS)	6.6					65NL 66					KK		X20	X20	X20				X20	X20	X20	X20 X20	X20				X20 X20	X20	SW(SPS)
														·	171	183	267				171	183	267	171 183	267				171 183	267	
												KK-SW		△	198	193	197				198	193	197	198 193	197				198 193	197	
														X	827	665	719				827	665	719	827 665	719				827 665	719	
														NL	65	71	107				65	71	107	65 71	107				65 71	107	
		TK	3.3			TK 9L 16		SW 9L 17				KK-TK	KK		˙22	˙42	˙61				˙22	˙42	˙61	˙22 ˙42	˙61				˙22 ˙42	˙61	
		"	110			5L 46		65NL 64						TOLL	X14	X26	X36				X14	X26	X36	X14 X26	X36				X14 X26	X36	
		"				5NL		65NL						TEST	9	17	25				9	17	25	9 17	25				9 17	25	
		"	33			9L 16		9L 17						OBS.ete	△32	△46	△61				△32	△46	△61	△32 △46	△61				△32 △46	△61	
		SP	42		SP 9L 17	MM 9L 12		PL 9L 1.3				KK-SP	KK		˙22	˙27	˙45				˙22	˙27	˙45	˙22 ˙27	˙45						˙22 ˙27 ˙45	SP
	T7	"	10.4		9NL 44	65L 25		5L 35						TOLL	X14	X17	X27				X14	X17	X27	X14 X17	X27						14 17 27	"
		"			9NL	65NL		5NL						TEST	9	11	19				9	11	19	9 11	19						9 11 19	"
		"	52		9L 17	9L 12		65L 23						OBS.ete	△39	△44	△33				△39	△44	△33	△39 △44	△33						△39 △44 △33	"
		TC	4.8(4.0)			TC 5L 31		SW 9L 17					KK		˙33	˙75	˙107				˙33	˙75	˙107	˙33 ˙75	˙107				˙33 ˙75	˙107	TC
		"	83			5NL 5.1		65L 32						TOLL	X20	X44	X61				X20	X44	X61	X20 X44	X61				X20 X44	X51	"
		"				5NL		65NL						TEST	13	31	45				13	31	45	13 31	45				13 31	45	"
		"	61			5L 31		65L 30						OBS.ete	△47	△35	△28				△47	△35	△28	△47 △35	△28				△47 △35	△28	"
		"	83			5NL 51		65L 32					KK		—	X50	X46				—	X50	X46	— X50	X46				— X50	X46	"
														·	33	75	107				33	75	107	33 75	107				33 75	107	
												KK-TC		△	47	35	28				47	35	28	47 35	28				47 35	28	
														X	20	94	107				20	94	107	20 94	107				20 94	107	
														NL	13	31	45				13	31	45	13 31	45				13 31	45	

(K K)

NO (9/10)

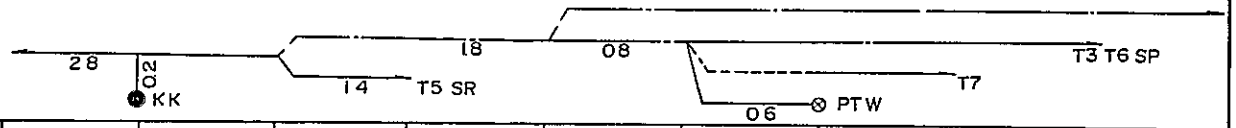
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	KK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
GENERAL CIRCUIT	T1	SR	36	SR 5NL 36	KK			X102	X186	X210	X102	X186	X210	SR															
				5NL	"			7	9	10	7	9	10	"															
		BP	61	5NL 27 SS 65NL 34	X34	X64	X84	KK																					
		SS	44	5NL 44	X50	X78	X153																						
		PTW		PTW 5NL	KK			X1	X3	X9				X1	X3	X9	X1	X3	X9	X1	X3	X9	PTW						
		PY	6.7	PY 65NL 67	"			X58	X110	X133				X58	X110	X133										X58	X110	X133	PY
		BS	78	9NL 44 SS 65NL 34	X26	X50	X70	KK																					
	T2	IM	10 1	IM 5NL 51 PY 5L 50	KK			X11	X23	X34				X11	X23	X34										X11	X23	X34	IM
		LPI	11 0	LP 65NL 60 PY 5L 50	"			X1	X3	X9				X1	X3	X9										X1	X3	X9	LPI
		LP2	9 0	LP2 9L 15 LPI 65L 27	"			X11	X23	X34				X11	X23	X34										X11	X23	X34	LP2
		NN	105	NN 9NL 81 SS 9NL 24	X11	X23	X34	KK																					
		PL	6.2	PL 5NL 6.2	KK			X100	X180	X190				X100	X180	X190	X100	X180	X190							X100	X180	X190	
	T3			5NL	"			25	30	30				25	30	30	25	30	30							25	30	30	
		MM	10 2	MM 5L 40 PL 5NL 62	"			X13	X20	X40				X13	X20	X40	X13	X20	X40							X13	X20	X40	
		ASD	9 9	ASD 5NL 6.2 PL 5L 37	"			X1	X3	X9				X1	X3	X9	X1	X3	X9							X1	X3	X9	
		SKV	9 0	5NL 53 5L 37	"				X3	X9					X3	X9		X3	X9								X3	X9	
	T4	LS	8 2	LS 9L 3.4 PY 5L 48	"			X11	X23	X34				X11	X23	X34										X11	X23	X34	LS
		NWW	7 1	NWW 9L 16 NWb 9L 23 65L 32	"			X3	X5	X10				X3	X5	X10										X3	X5	X10	NW
		DM	8 7	DM 9L 23 LS 9L 32 PY 65L 32	"			X25	X50	X65				X25	X50	X65										X25	X50	X65	DM
		BK	9.3	BK 9L 2.4 PY 65NL 67	"			X13	X25	X35				X13	X25	X35										X13	X25	X35	BK
				9NL 65NL	"			2	3	5				2	3	5										2	3	5	"
		RS	10 1	KS 9L 52 LS 9L 32 PY 9L 17	"				X2	X9					X2	X9											X2	X9	RS
		BCM	9 6	BCH 9L 47 LS 9L 32 PY 9L 17	"				X3	X9					X3	X9											X3	X9	BCH
		PK	7 8	PK 9L 29 OLS 9L 32 PY 9L 17	"				X3	X9					X3	X9											X3	X9	PK
		RID	10 6	RID 9L 25 LS 9L 32 PY 9NL 47	"				X2	X9					X2	X9											X2	X9	RIL
		SDM	10 6	SDM 65L 42 LS 9L 32 PY 65L 32	"				X3	X9					X3	X9											X3	X9	SDR
		PTN	125 (110)	PTN 9L 76 LS 9L 3.2 PY 9L 17	"			X10	X22	X34				X10	X22	X34										X10	X22	X34	PTA
	T5	TH	6.3	TH 65NL 6.3	"			X66	X120	X140	X66	X120	X140	TH															
		PD	8.3	PD PCM 2.0 TH 65NL 6.3	"			X3	X5	X10	X3	X5	X10	PD															
		BC	8 0	BC 5NL 50 TH 65L 30	"			X23	X45	X60	X23	X45	X60	BC															
		DK	9 9	DK 9NL 33 TH 65NL 63	"			X18	X33	X50	X18	X33	X50	DK															
		NK	10 8	NK 9L 45 TH 65NL 63	"				X2	X9		X2	X9	NK															
		P3P	6 5	PSR 65L 24 BC 9L 11 TH 65NL 30	"			X11	X23	X34	X11	X23	X34	PSR															
		BKT	10 4	BKT 65L 28 DK 9L 13 TH 65NL 63	"				X3	X9		X3	X9	BKT															
		CHW	9 8	CHW 5NL 66 TH 65L 32	"			X11	X23	X34	X11	X23	X34	CHW															
		MSK	10.8	MSK 9L 45 TH 65NL 63	"				X2	X9		X2	X9	MSK															
		PPJ	8 6	PPJ 9L 56 TH 65L 30	"				X2	X9		X2	X9	PPJ															
	T6	PKN	7 9	PKN 65L 44 PL 5L 35	"			X1	X3	X9				X1	X3	X9	X1	X3	X9							X1	X3	X9	PKN
		CP	8 6	CP 5L 51 PL 5L 51	"			X41	X80	X108				X41	X80	X108	X41	X80	X108							X41	X80	X108	CP
		BN	9 9	BN 5L 34 PKN 65L 42 PL 65L 23	"			X3	X6	X10				X3	X6	X10	X3	X6	X10							X3	X6	X10	BN
		"		5NL 65NL 65NL				2	2	5				2	2	5	2	2	5							2	2	5	"
		KC	11 0	65L 34 65L 41 5L 35	"			X1	X3	X9				X1	X3	X9	X1	X3	X9							X1	X3	X9	KC
		P3	10 6	PS 65L 41 BN 65L 42 PKN 65L 23	"			X1	X3	X9				X1	X3	X9	X1	X3	X9							X1	X3	X9	PS
		SMP	10 4	SMP 9L 18 PS 65L 39 PKN 65L 42 PL 65L 23	"			X1	X3	X9				X1	X3	X9	X1	X3	X9							X1	X3	X9	SMP
		ON2	9 9	ON2 9L 34 PKN 65L 42 PL 65L 23	"				X3	X9					X3	X9		X3	X9								X3	X9	ON2

NO46

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	KK

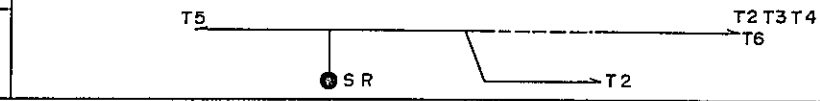


KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
GENERAL CIRCUIT		ONI	10 5	ONI 5L 40	PKN 65L 42	PL 65L 23						x_3	x_9					x_3	x_9		x_3	x_9								x_3	x_9	ONI
	T6	HM	10 7		HM 65L 45	PL 5L 62					x_1	x_3	x_9				x_1	x_3	x_9	x_1	x_3	x_9							x_1	x_3	x_9	HM
		B∨P	8 3	BYP 9L 36	PKN 9L 24	PL 65L 23						x_2	x_9					x_2	x_9		x_2	x_9								x_2	x_9	BYP
		LKB	10 3	LKB 9L 58	PKN 9L 22	PL 65L 23						x_2	x_8					x_2	x_8		x_2	x_8								x_2	x_8	LKB
		SW	6 6			SW 65NL 6 6					x_{73}	x_{100}	x_{110}				x_{73}	x_{100}	x_{110}	x_{73}	x_{100}	x_{110}				x_{73}	x_{100}	x_{110}				SW
		〃				〃 6 6					52	104	110				52	104	110	52	104	110				52	104	110				〃
	T7	TK	11 0		TK 5L 46	SW 65L 6 4					x_{12}	x_{23}	x_{30}				x_{12}	x_{23}	x_{30}	x_{12}	x_{23}	x_{30}				x_{12}	x_{23}	x_{30}				TK
		SP	10 4	SP 9NL 4 4	MM 65L 2 5	PL 5L 2 5					x_1	x_3	x_9				x_1	x_3	x_9	x_1	x_3	x_9							x_1	x_3	x_9	SP
		TC	8 3			TC 5NL 5 1	SW 65L 3 2				x_1	x_3	x_9				x_1	x_3	x_9	x_1	x_3	x_9				x_1	x_3	x_9				TC
					SUB	* 4 db cel		468 590 810			2200 3271 4887			928 1214 1688			1305 2124 3201			981 1622 2463			165 324 432			226 300 435			590 998 1596			324 502 838
						△ 6 db		159 119 140			2007 2589 2918			522 746 794			1615 2012 2300			1003 1290 1426			30 44 57			277 274 286			696 972 1065			612 722 874
						X 11 db		420 513 814			4541 5591 6768			1435 1623 1955			3127 4030 4895			2425 3093 3809			115 347 419			947 911 1011			1363 1835 2474			702 937 1086
						NL		74 92 182			745 1212 1837			210 299 471			548 940 1414			416 716 1089			18 56 94			139 223 287			259 437 708			132 224 325
					GRAND	TOTAL		1121 1314 1946			9493 12663 6410			3095 3882 4908			6595 9106 11810			4825 6721 8687			328 771 1002			1589 1708 2019			2908 4242 5866			1770 2385 3123

(S R)

NO (1/2)

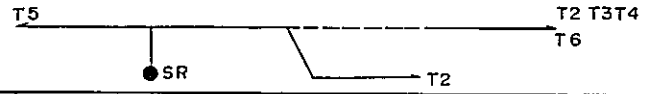
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	S R



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)					'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d b)					LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT											SR	△81	△93	△111				△81	△93	△111				KK	5NL 3.6 KK					3.6	KK	T1	GENERAL CIRCUIT
											•	•456	•537	•624				•456	•537	•624				KK	5NL 3.6					3.6	KK		
											•	X606	X474	X450				X606	X474	X450				KK	5NL 3.6					3.6	KK		
											•	X177	X204	X300				X177	X204	X300				KK	5NL 3.6					3.6	KK		
											•	•171	•198	•294				•171	•198	•294				KK TOLL	•5NL 3.6					3.6	KK TOLL		
											•	60	72	114				60	72	114				KK TEST	5NL						KKTEST		
											•	5	5	5				5	5	5				KK OBS	5NL						KK.OBS		
											•	14	14	14				14	14	14				KK MISC	5NL						KK.MISC		
											•	X90	X72	X132				X90	X72	X132				BP	•5N L 2.7 KK	65NL 3.4 SS	5NL 3.6 BP			9.7	BP		
											•	X162	X546	X903				X162	X546	X903				PTW	5N L 7.8 PTW					7.8	PTW		
											•	1	1	1				1	1	1				PTW MISC	5N L						PTWMISC		
											•	X30	X87	X183				X30	X87	X183				SS	5N L 3.6	5NL 3.4 KK	65NL 3.4 SS			10.4	S S		
											•	△117	△108	△96				△117	△108	△96				PY	•5L 6.6 PY					6.6(6.0)	PY		
											•	X231	X186	X201				X231	X186	X201				PY	5L 6.6					6.6	PY		
											•	X102	X93	X195				X102	X93	X195				BS	5NL 3.6 KK	9NL 2.4 SS	9NL 4.4			10.4	BS		
											•	—	X69	X105				—	X69	X105				I M	5L 6.6 PK	65NL 4.0 IM				10.6	IM	T2	
											•	—	—	X66				—	—	X66				LP-2	5L 6.4	9L 1.5 LP1	9L 1.5			9.4	LP-2		
											•	X63	X111	X204				X63	X111	X204				LP-1	5L 6.4	65L 2.9				9.3	LP-1		
											•	—	—	X81				—	—	X81				N N	5NL 3.6 KK	65NL 3.4 BSb	9L 3.1 NN			10.1	N N		
											•	△75	△90	△114				△75	△90	△114				PL	5L 5.3 PL					5.3	PL		
											•	X462	X408	X720				X462	X408	X720				P L	5N L 9.2					9.2	PL		
											•	X162	X126	X237				X162	X126	X237				M M	5L 5.3	•65NL 5.3 MM				10.6	MM	T3	
											•	X108	X306	X468				X108	X306	X468				ASD	•5L 5.1	5L 3.5 ASD				8.6	ASD		
											•	—	X267	X399				—	X267	X399				SKV	5L 5.3	5NL 5.3 SKV				10.6	S K V		
											•	△51	△105	△159				△51	△105	△159				LS	5N L 3.6 KK	PCM 2.0 LS				5.6	LS		
											•	X42	X33	X48				X42	X33	X48				NWW	5N L 3.6	9L 2.1 PY	9L 2.1 NWb	9L 1.6		9.0	NWW	T4	
											•	X30	—	—				X30	—	—				BK	5L 6.4 PY	9L 2.4 BK				8.8	BK		
		TH	4.8					TH 5NL 4.3	△96	△132	△141	SR																				
		TH	4.8					5NL 4.3	X336	X294	X432	•																				
		BC	9.8				BL 5NL 5.0	5NL 4.8	—	—	X69	•																				
	T5	DK	8.1				DK 9NL 3.3	5NL 4.8	X36	X30	X75	•																				
		SKT	8.9			BKT 65L 2.8	9L 1.1	5NL 4.8	—	—	X63	•																				
		CHW	8.8			CHW 5L 4.0	•5NL 4.8	X81	X105	X207		•																				
		PD	6.8			PD PCM 2.0	5NL 4.8	X30	X33	X78		•																				
		THTKE						5NL	1	1	1	•																				
											SR	△162	△276	△258				△162	△276	△258				PKN	•5NL 3.6 KK	PCM 2.0 PKN				5.6	PKN		
											•	X45	X78	X120				X45	X78	X180				PKN	65L 3.4 PL	65L 4.4				7.8	PKN		
											•	X390	X300	X354				X390	X300	X354				CP	65L 3.4	5L 5.1 CP	65L 3.4			8.5	CP		
											•	X30	—	X33				X30	—	X33				BN	65L 3.4	9L 2.2 PKN	65L 3.4			9.0	BN		
											•	—	—	X33				—	—	X33				KC	5L 5.1	9L 2.3 HM	9L 1.9			9.3	KC		
											•	—	—	X39				—	—	X39				PS	65L 3.4	9L 2.4 PKN	65L 4.1			9.9	PS	T6	
											•	—	X39	X123				—	X39	X123				ON-2	65L 3.4	9L 2.2	9L 3.4			9.0	ON-2		
											•	—	X42	X156				—	X42	X156				ON-1	•65L 3.4	• 9L 2.2	•65L 2.6			8.2	ON-1		
											•	X123	X183	X324				X123	X183	X324				HM	65L 3.4	65L 4.3 HM				7.7	HM		

(SR)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	S R

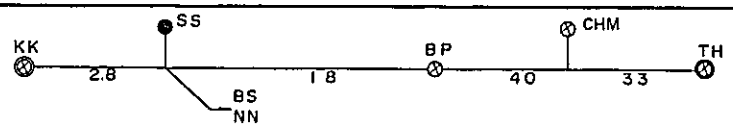


KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
EXSECTIVE CIRCUIT										SR	Δ11	1Δ	99Δ	114	Δ11	1Δ	99Δ	114	SW			
										•	X990	X846	X1197		X990	X846	X1197		SW			
										•	X 30	X 36	X 43		X 30	X 36	X 48		SWSPS			
										•	1	1	1		1	1	1		SWMISC			
										•	—	X 30	X 45		—	X 30	X 45		TK			
										•	—		X 60		—	—	X 60		SP			
										•	X 30	X 30	X 120		X 30	X 90	X 120		TC			
										SR	X102	X186	X210				X102	X186	X210			
										•	7	9	10				7	9	10			
										•	X 7	X 10	X 20				X 7	X 10	X 20			
										•	6	10	20				6	10	20			
										•	8	13	25				8	13	25			
										•	11	18	35				11	18	35			
										•	3	5	10				3	5	10			
										•	X 2	X 3	X 5				X 2	X 3	X 5			
										•	27	42	55				27	42	55			
										•	2	3	5				2	3	5			
										•	X 3	X 5	X 10				X 3	X 5	X 10			
										•	3	5	10				3	5	10			
										•	3	5	10				3	5	10			
		TH					TH	5NL		SR	10	30	59									
	T5	BC				5NL		5NL		•	10	15	30									
		DK				5NL		5NL		•	3	5	10									
										SR	X 2	X 2	X 4				X 2	X 2	X 4			
										•	4	8	16				4	8	16			
										•	8	13	25				8	13	25			
										•	3	5	10				3	5	10			
										•	X 2	X 3	X 7				X 2	X 3	X 7			
										•	58	90	179				58	90	179			
						SUB	• 4 db							627	735	918				627	735	918
							Δ 6 db	96	132	141				597	771	852	111	99	114	486	672	738
						TOTAL	X 11 db	483	462	924				4021	4835	7600	1050	1022	1470	2971	3833	6130
							NL	33	51	100				224	319	545	1	1	1	223	318	544
						GRAND	TOTAL	612	645	1165				5469	6660	9915	1162	1102	1585	4307	5558	8330

TRANSMISSION SUSTEM & LOSS (db)				LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
5L 42 SW				42	SW		GENERAL CIRCUIT
5NL 71				71	SW		
5NL 71				71	SWSPS		
5NL 71				71	SWTKE		
5L 40	5L 44 TK			84	TK	T7	
5NL 51 PL	65L 23 MM	9L 17		91	SP		
5L 42 ST	5NL 51 TC			93	TC		
5NL 71					SWMISC		
5NL 36 KK				36	KK		EXSECTIVE CIRCUIT
5NL					KK	T1	
5NL 36	5NL 44 SS			80	SS		
5NL	5NL 44			44	SS		
5NL PY					PY		
5NL 36 KK	9NL 24 SS	9NL 44 SS		104	BS	T2	
5NL PY	65NL IM				IM		
5NL 92 PL				92	PL		
5NL					PL	T3	
5NL	65NL				MM		
5L 64 PY	9L 21 NWb	9L 16		101	NWW		
5NL	9NL				BR	T4	
5NL	9NL LS	9NL			DM		
5NL 51 PL	5L 51 CP			102	CP		
5NL	5NL				CP	T6	
5NL	65NL	5NL			BN		
5NL SN	5NL				TK		
5NL 71 SW				71	SW		
5NL 71				71	SW	T7	

(BP)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	BP ~ SS

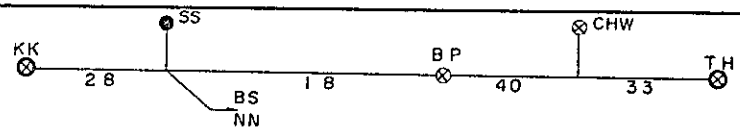


KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (db)				LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
EXSECTIVE CIRCUIT	T1	KK	6.1			KK 65NL 34	SS 5NL 2.7	X 34	X 64	X 82				X 34	X 64	X 82	BP													
	T3	PL	10.4		PL 5NL 6.2	KK 5L 2.6	5L 1.6	X 1	X 3	X 9				X 1	X 3	X 9	"													
		SW	9.2		SW 65NL 6.6	KK 6.5L 1.7	6.5L 0.9	X 1	X 3	X 9				X 1	X 3	X 9	"													
	T7	SW			65NL	KK 65NL	65NL	2	4	6				2	4	6	"													
					BP	SUB TOTAL	4 db	207	236	302				207	236	3302														
							6 db	131	183	216	42	34	34	173	217	205	29	40	51	29	40	51								
							11 db	476	482	1004	140	132	352	641	594	1437	112	85	226	81	52	155								
							NL	26	28	48				27	29	49														
						GRAND TOTAL		840	879	1570	182	166	386	1048	1076	2038	141	125	277	110	92	206								

(SS)

NO (3/5)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	SS ~ KK

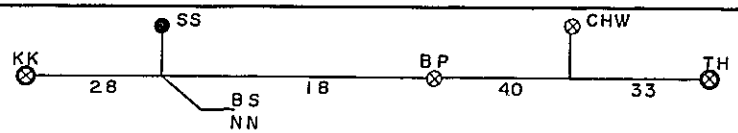


KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (db)	LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT	T1	KK	3.4	KK 65NL 3.4	49	98	89	SS															T1	GENERAL CIRCUIT
		•	3.2	KK 65NL 3.4	△56	△22	△33	•																
		KK	3.4	KK 65NL 3.4	X26	X52	X76	•																
		KK TOLL	3.4	KK 65NL 3.4	X20	34	X70	•																
			3.4	KK 65NL 3.4	33	57	124	•																
		KKTEST		KK 65NL	10	20	50	•																
		KKOBS		KK 65NL	3	3	3	•																
		KKMISC		KK 65NL	5	5	5	•																
		SR	10.4	SR 5NL 3.6 5NL 3.4 KK 65NL 3.4	X30	X87	X183	•																
		BP		5NL																5NL BP		BP		
		PTW	8.5	PTW 5NL 5.1 KK 65NL 3.4 SS	—	X62	X5.1	SS																
								△38	△32	△40										9NL 5.3 PY	5.3	PY		
								X47	X68	X11										9NL 5.3	5.3	PY		
																				9NL		PYTKE		
								X43	X61	184										9NL 4.4 BS	4.4	BS	T2	
								—	X40	X94										9NL 5.3 PY 5NL 5.1 IM	10.4	IM		
								—	X41	X112										9L 2.1 65NL 6.0 LP-1	8.1	LP-1		
								—	X16	X54										9NL 5.3 65L 2.7 9L 1.5 LP-2	9.5	LP-2		
								—	X27	X66										9NL 4.4 BS 9NL 3.6 NN	8.0	NN		
		PL	4.9	PL 65L 2.3 KK 5L 2.6	△33	△23	△31	SS																
		PL	10.6	5NL 6.2 5NL 4.4	X24	X53	X144	•																
	T3	MM	8.8	HM 65L 2.5 PL 5L 3.3 KK 5L 2.6	—	—	X30	•																
		ASO	10.4	5L 3.5 PL 65L 2.3 KK 5NL 4.4	—	X43	X96	•																
		SKV		65L 2.2 PL 65NL 4.8 KK 65NL 3.4	—	X36	X80	•																
		LS	5.4	LS PCM 2.0 KK 65NL 3.4	△13	△44	△66	•																
		LS	6.4	LS PCM 2.0 KK 5NL 4.4	—	—	X16	•																
		DM	8.9	9L 2.5 LS PCM 2.0 KK 5NL 4.4	—	—	X15	•																
		BCH	10.3	BCH 9L 4.9 LS PCM 2.0 KK 65NL 3.4	—	—	X15	X11	—	X33										65NL 3.4 PY 5L 5.0 BK 9L 2.4	10.8	BK		
	T4	PK	6.4	PK 2.0 KK 5NL 4.4	—	—	X3.4	•																
		RID	9.1	9L 2.7 LS 2.0 KK 5NL 4.4	—	—	X16	•																
		SDM	10.7	65L 4.3 LS PCM 2.0 5NL 4.4	—	—	X12	•																
		PTN	6.4	PTN PCM LS PCM 2.0 KK 5NL 4.4	—	—	X26	X26	X31	X62										9NL 4.5 BS 9NL 6.5 NWW	11.0	NWW		
		TH	5.6	TH 65L 3.0 KK 5L 2.6	△29	△38	△49	•																
		TH	10.7	65NL 6.3 5NL 4.4	X12	X27	X61	•																
	T5	BC	8.3	BC 5L 2.9 TH 65L 2.8 5L 2.6	—	X26	—	•																
		DK	8.7	DK 9NL 3.3 65L 2.8 5L 2.6	—	X29	—	•																
		BKT	10.8	BKT 65L 2.8 DK 65L 1.1 65L 3.0 5L 2.6	—	X12	—	•																
								•			—	—	X35	—	—	X35				5NL 2.7 BP 65NL 4.6 CHW	7.3	CHW		
		PKN	4.8	PKN PCM 2.0 KK 5L 2.8	△45	△63	△69	•																
		PKN	9.1	PKN 65L 4.4 PL 65L 2.1 5L 2.6	—	—	X20	•																
	T6	CD	10.2	CD 65L 3.3 PL 5L 3.5 65NL 3.4	—	—	X52	•																
		BN	9.4	BN 5L 3.4 PKN 9L 2.2 PL 65L 2.1 65L 1.7	—	—	X23	•																
		KC	10.1	KC 9L 1.9 HM 9L 2.3 PL 5L 3.3 5L 2.6	—	X27	X56	•																

NO 52

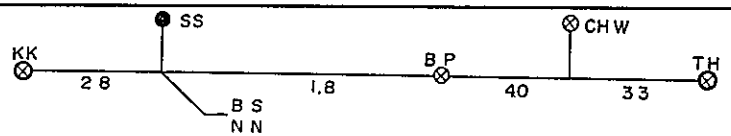
(SS)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	SS ~ KK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d b)				LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT	T6	PS	8.3	PS 9L 2.3	PKN 9L 2.2	PL 65L 2.1	65L 1.7	—	—	X 25	SS																			GENERAL CIRCUIT
		ON-1	10.0	ON-1 5L 4.0	PKN 9L 2.2	PL 65L 2.1	65L 1.7	—	—	X 15	'																			
		ON-2	9.1	ON-2 PCM 2.0	9L 2.4	PL 65L 2.1	5L 2.6	—	—	X 14	'																			
		HM	9.0		HM 65L 4.3	PL 65L 2.1	5L 2.6	—	X 10	X 48	'																			
		SW	5.7			SW 65L 3.1	5L 2.6	Δ 17	Δ 28	Δ 38	'																			
	T7	SW	10.0			65NL 6.6	65NL 3.4	X 66	X 87	X 80	'																			
		TC	9.6		TC 5L 3.1	SW 65L 3.1	65NL 3.4	—	—	X 31	'																			
		SW(SPS)	10.0			65NL 6.6	65NL 3.4	X 6	X 10	X 20	'																			
EXSECTIVE CIRCUIT		SR	8.0			SR 5NL 3.6	KK 5NL 4.4	X 7	X 10	X 20	'																			
	T1	SR	4.4			5NL	5NL 4.4	6	10	20	'																			
		KK	4.4				5NL 4.4	X 50	X 78	X 153	'																			
										SS	X 4	X 6	X 10	BS									9NL 4.5	BS			4.5	BS	T2	EXSECTIVE CIRCUIT
	T3	PL	10.6			PL 5NL 6.2	KK 5NL 4.4	X 3	X 5	X 10	'												9NL 4.5				4.5	BS		
	T5	TH	10.7			TH 65NL 6.3	5NL 4.4	X 2	X 3	X 5	SS																			
	T7	SW	11.0			SW 65NL 6.5	5NL 4.4	47	72	145	'																			
						SUB TOTAL	4 db	182	255	313																				
							6 db	231	250	326																			
							11 db	351	834	1968	73	222	582			35			35											
							NL	25	39	79	1	2	5	1	1	1													
						GRAND TOTAL		759	1378	2704	74	224	587		35	35			35											

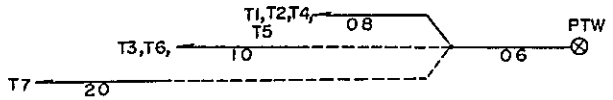
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T I	KK ~ SS



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
								Δ45	Δ42	Δ29	Δ45	Δ42	Δ29	NN											
								• 22	• 33	• 57	• 22	• 33	• 57												
								X 14	X 20	X 34	X 14	X 20	X 34												
								6	10	20	6	10	20												
								3	3	3	3	3	3												
								—	—	X 20	—	—	X 20												
								Δ33	Δ30	Δ44	Δ33	Δ30	Δ44	BS											
								X 88	X 66	X 88	X 88	X 66	X 88												
								• 57	• 66	• 138	• 57	• 66	• 138												
								X 34	X 39	X 77	X 34	X 39	X 77												
								X 102	X 93	X 195	X 102	X 93	X 195												
								20	24	56	20	24	56												
								3	3	3	3	3	3												
								11	18	35	11	18	35												
								X 26	X 50	X 70	X 26	X 50	X 70												
								X 11	X 23	X 34	X 11	X 23	X 34	NN											
								—	—	X 81	—	—	X 81	SR											
					SUB TOTAL	• 4 db		79	99	195	79	99	195												
						Δ 6 db		78	72	13	78	72	73												
						X 11 db		275	291	599	275	291	599												
						NL		43	58	117	43	59	117												
					GRAND TOTAL			475	520	984	475	520	984												

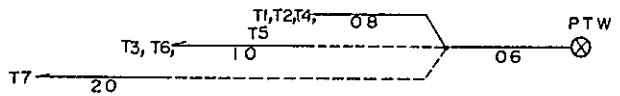
TRANSMISSION SUSTEM & LOSS (d·b)				LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
9L 2.9	S 9L 1.0	K K		3.9	KK	TI	GENERAL CIRCUIT
9L 2.9	9L 1 0			3 9	KK TOLL		
9NL 8 1	9NL 2.4			10 5	KKTEST		
9NL	65NL				KKOBS		
9NL	65NL				KK		
9NL 8.1	9NL 2.4			10.5	KK		
9L 1 9	9NL 2.4			4.3	KK		
9NL 4.4	65NL 3.4			7 8	KK		
9L 1.7	9L 1.0			2 7	KK TOLL		
9NL 4 4	65NL 3.4			7.8	S R		
9NL 4.4	9NL 2.4	5NL 3 6	S R	10.4	KKTEST		
9NL	65NL				KKOBS		
9NL 4.4	65NL				SR		
9NL 4.4	9NL 2.4	5NL 3.6		10.4	KK		
9NL 4 4	65NL 3 4			7.8	KK		
9NL 8.1	9NL 2.4			10 5	SR		
9L 3 1	65NL 3 4	5NL 3 6		10 1			

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	PTW



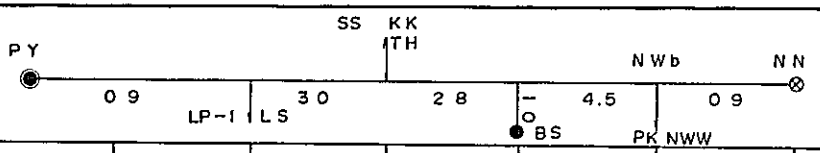
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T1	KK	3 1	KK 5L 3 1							KK	132	204	229	132	204	229	PTW										
		KK	5 1	·5NL 5 1							KK	Δ 30	Δ 44	Δ 57	Δ 30	Δ 44	Δ 57											
		KK	5.1	·5NL 5 1							KK	X 94	X 276	X 298	X 94	X 276	X 298											
		KK TOLL	5 1	5NL 5.1							KK TOLL	X 20	X 68	X 112	X 20	X 68	X 112											
			3 1	·5L 3 1								· 33	· 120	· 203	· 33	· 120	· 203											
		KKTEST		5NL							KKTEST	10	48	86	10	48	86											
		KKOBS		·5NL							KKOBS	3	3	3	3	3	3											
		KKMISC		5NL							KKMISC	5	5	5	5	5	5											
		SR	7.8	SR ·5NL 7 8							SR	X 162	X 546	X 903	X 162	X 546	X 903											
		SRMISC		·5NL							SRMISC	1	1	1	1	1	1											
		BP	10.6	BP 65NL 2 1 SS 65NL 3 4 KK ·5NL 5 1							BP	X 24	X 66	X 141	X 24	X 66	X 141											
		SS	8 5	·65NL 3.4 ·5NL 5 1							SS	—	X 62	X 151	—	X 62	X 151											
	T2	PY	4 5	PY 5L 4 5							PY	Δ 42	Δ 39	Δ 51	Δ 42	Δ 39	Δ 51											
		PY	7 7	5NL 7 7							PY	X 28	X 119	149	X 28	X 119	X 149											
		BS	11.0	BS · 9L 1 1 BSb 65L 2 2 ·5NL 7 7							BS	X 13	X 69	X 162	X 13	X 69	X 162											
		IM	9 6	IM 5NL 5 1 5L 4 5							IM	—	X 73	X 128	—	X 73	X 128											
		LP-2	8 5	LP-2 9L 1 5 LP-1 65L 2 7 5L 4 3							LP-2	—	X 41	X 71	—	X 41	X 71											
		LP-1	10 5	65NL 6 0 5L 4 5							LP-1	—	X 76	X 158	—	X 76	X 158			PTW								
		NN	8 7	PL 9L 2.4 BSb 65L 2 0 5L 4 3							NN	—	X 28	X 56	—	X 28	X 56											
	T3	PL	2 9	PL ·5NL 2 9	PL			29	39	59					21	39	59											
		PL	2.9	5NL 2 9	PL			X 90	X 278	X 564					X 90	X 278	X 564											
		MM	9 7	MM 5L 6 8 ·5NL 2 9							MM	X 25	X 66	X 139	X 25	X 66	X 139											
		ASD	9 1	SKD 5NL 6 2 5NL 2.9	ASD			X 14	X 213	X 369					X 14	X 213	X 369											
		SKV	8 2	SKV 5NL 5 3 5NL 2.9	SRV			—	X 19	X 321					—	X 191	X 321											
	T4	LS	5 2	LS PCM 2 0 KK 5L 3 2							LS	Δ 22	Δ 66	Δ 76	Δ 22	Δ 66	Δ 76											
		LS		〃 2 0 ·5NL 5 1							LS	—	—	X 20	—	—	X 20											
		NWW	8.2	NWW 9L 1 6 NWb 9L 2.3 PY 5L 4 3							NWW	—	X 23	X 49	—	X 23	X 49											
		DM	9.6	DM 9L 2 5 PCM 2 0 KK ·5NL 5 1							DM	—	X 16	X 42	—	X 16	X 42											
		BK	10 3	BK 9L 2.6 PY 5NL 7 7							BK	X 11	X 28	47	X 11	X 28	X 47											
		RS	7 1	RS PCM 2 0 LS PCM — KK 5NL 5.1							RS	—	—	X 16	—	—	X 16											
		PK	7 1	PK PCM 2 0 · — ·5NL 5 1							PK	—	X 10	X 16	—	X 10	X 16											
		RID	9 8	RID · 9L 2 7 〃 2 0 5L 5 1							RID	—	—	X 29	—	—	X 29											
		SDM	9 5	SDM 65L 4 3 · 2.0 5L 3 2							SDM	—	X 15	X 21	—	X 15	X 21											
		PTN	7.1	PTN PCM 2 0 · — PY 5NL 5.1							PTN	—	—	X 13	—	—	X 13											
		BCH	10 1	BCH · 9L 4 7 · — KK 5L 3 2							BCH	—	—	X 21	—	—	X 21											
	T5	TH	8 3	TH 65L 3 2 ·5NL 5 1							TH	X 43	X 138	X 231	X 43	X 138	X 231											
		PD	8.9	PD PCM 2 0 · 9L 1 8 5NL 5 1							PD	—	—	X 18	—	—	X 18											
		DK	9 1	DK · 9NL 3 3 65L 3 0 ·5L 2 8							DK	—	X 30	X 52	—	X 30	X 52											
		BC	8 7	BC 5L 2 9 65L 2 8 5L 3 0							BC	—	X 23	X 49	—	X 23	X 49											
		PSR	7.7	·65L 2 4 BC · 9L 0 9 9L 1 4 5L 3 0							PSR	—	X 23	X 39	—	X 23	X 39											
		BKT	8 1	65L 2 8 DK 9L 1 1 · 9L 1 4 5L 2 8							BKT	—	—	X 36	—	—	X 36											
		CHW	8 2	CHW 5L 3 8 9L 1 4 ·5L 3 0							CHW	—	X 48	X 106	—	X 48	X 106											
		TH	6 0	TH ·65L 3 0 KK 5L 3 0							TH	Δ 34	Δ 62	Δ 72	Δ 34	Δ 62	Δ 72											

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T1	PTW



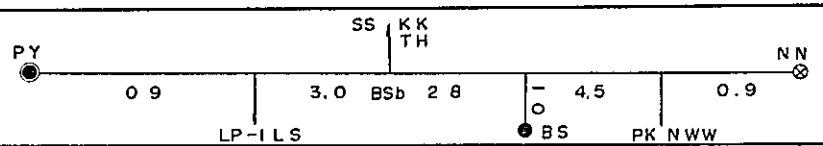
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T6	PKN	6 1	PKN 65L 4.4 PL 5L 1 7	PKN			Δ45	Δ81	Δ112				Δ45	Δ81	Δ112	PTW											
		PKN	6 1	65L 4 4 5L 1 7	PKN			—	X23	X 38				—	X23	X 38	〃											
		CP	8 2	5L 5 3 PL 5NL 2 9	CP			X32	X122	X156				X32	X122	X156	〃											
		BN	9 3	BN 5L 3 4 PKN 65L 4.2 5L 1.7	BN			—	X36	X 58				—	X36	X 58	〃											
		KC	8 6	KC 65L 3.4 HM 9L 2.3 5NL 2 9	KC			—	X48	X 77				—	X48	X 77	〃											
		PS	10 0	PS 65L 4 1 PKN 65L 2.4 5L 1 7	PS			—	X30	X 53				—	X30	X 53	〃											
		SMP	9 7	9L 1 8 ·65L 3.9 ·65L 4 2 5L 1 7	SMP			—	X12	X 36				—	X12	X 36	〃											
		ON-2	10 7	ON-2 9L 3 4 65L 4 4 ·5NL 2.9	ON-2			—	X11	X 48				—	X11	X 48	〃											
		ON-1	8 5	ON-1 65L 2 5 65L 4 2 5L 1 7	ON-1			—	X24	X 62				—	X24	X 62	〃											
		HM	7 2	HM 65L 4 3 5NL 2 9	HM			—	X66	X135				—	X66	X135	〃											
	T7	SW	4 7	SW 5NL 4 7	Δ27	Δ39	Δ50							Δ27	Δ39	Δ50	〃											
		SW	4 7	5NL 4 7	X168	X510	X822							X168	X510	X822	〃											
		TK	9 3	TK 5L 4.5 5NL 4.7	—	X30	X 49							—	X30	X 49	〃											
		SP	7 1	SP 9L 1.7 MM 65 2.5 5NL 2 9	—	X10	X 35							—	X10	X 35	〃											
		TC	9 8	TC 5NL 5.1 SW 5NL 4.7	—	X56	X 87							—	X56	X 87	〃											
		SWSPS	4.7	·5NL 4 7	X 6	X19	X 31							X 6	X19	X 31	〃											
EXSELTIVE CIRCUIT	T1	KK		KK 5NL						KK —	X 1	X 3	X 9	X 1	X 3	X 9	PTW											
	T3	PL	2 9	PL 5NL 2.9		PL —		X 1	X 3	X 9				X 1	X 3	X 9	〃											
	T7	SW	4 7	SW 5NL 4 7	X 1	X 3	X 9							X 1	X 3	X 9	〃											
				• 4 db							165	324	432	165	324	432												
				SUB TOTAL Δ 6 db	27	39	50	66	120	171	128	211	256	21	370	477											
				X 11 db	175	628	1033	137	1057	1826	421	1847	3282	733	3532	6241											
				NL							19	57	95	19	57	95												
				GRAND TOTAL	202	667	1083	203	1177	2097	733	2439	4065	1138	4283	7245											

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T2	NN ~ NWb ~ BS



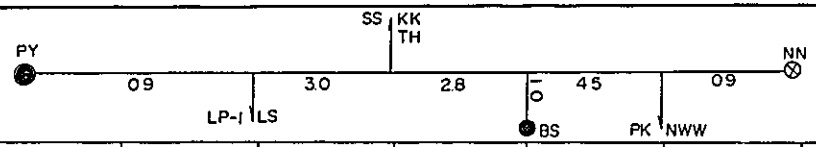
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)			'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		PY	3.7		PY	9L 1.3 BSb 9L 2.4	108	133	153	108	133	153	108	133	153	108	133	153	108	133	153	NN								
		PY	4.6			65L 2.2 9L 2.4	Δ29	Δ38	Δ38	Δ29	Δ38	Δ38	Δ29	Δ38	Δ38	Δ29	Δ38	Δ38	Δ29	Δ38	Δ38									
	T2	PY	9.8			9NL 3.2 9NL 6.6	X10	X10	X22	X10	X10	X22	X10	X10	X22	X10	X10	X22	X10	X10	X22									
		IM	9.7		IM	5NL 5.1 65L 2.2 9L 2.4	—	—	X27	—	—	X27	—	—	X27	—	—	X27	—	—	X27									
		LP-1	10.6		LP	65NL 6.0 65L 2.2 9L 2.4	—	X14	X39	—	X14	X39	—	X14	X39	—	X14	X39	—	X14	X39									
		BS	4.5			BS 9NL 4.5									BS	X27	X32	X76	X27	X32	X76									
		LS	5.7		LS	PCM 2.0 9L 1.3 BSb 9L 2.4	Δ13	Δ20	Δ34	Δ13	Δ20	Δ34	Δ13	Δ20	Δ34	Δ13	Δ20	Δ34	Δ13	Δ20	Δ34									
	T4	NWW	3.4			NWW 9NL 3.4												NWW	X56	X59	X98									
		PK	7.1		PK	65L 3.2 NNb 9L 0.5 9NL 3.4												PK		X33	X98									
		PTN	9.3	PTN 9L 4.7		65L 3.0 9L 0.3 9L 1.3												PTN		X21	X50									
	T6	PKN	5.7			PKN PCM 2.0 PY 9L 3.7	Δ25	Δ34	Δ44	Δ25	Δ34	Δ44	Δ25	Δ34	Δ44	Δ25	Δ34	Δ44	Δ25	Δ34	Δ44									
		KC	10.8		KC	PCM 2.0 PY 9NL 5.5 BS 9NL 3.8	—	—	X14	—	—	X14	—	—	X14	—	—	X14	—	—	X14									
	T1	KK	3.9			KK 9L 1.0 SS 9L 2.9												KK	Δ45	Δ42	Δ29	Δ45	Δ42	Δ29	Δ45	Δ42	Δ29			
		KK TOLL	3.9			9L 1.0 9L 2.9												KK TOLL	22	33	57	22	33	57	22	33	57			
			10.5			9NL 2.4 9NL 8.1													X14	X20	X34	X14	X20	X34	X14	X20	X34			
		KK	10.5			9NL 2.4 9NL 8.1												KK	—	—	X20	—	—	X20	—	—	X20			
		BP	10.1		BP	65NL 2.1 SS 9NL 4.4 9NL 3.6												BP	—	—	X13	—	—	X13	—	—	X13			
		SS	8.0			9NL 4.4 BS 9NL 3.6												SS	—	X27	X66	—	X27	X66	—	X27	X66			
		PTW	8.7		PTW	5L 4.3 PY 65L 2.0 BSb 9L 2.4	—	X28	X56	—	X28	X56	—	X28	X56	—	X28	X56	—	X28	X56									
	T3	PL	5.0			PL 9L 1.5 PY 9L 3.5	Δ24	Δ40	Δ27	Δ24	Δ40	Δ27	Δ24	Δ40	Δ27	Δ24	Δ40	Δ27	Δ24	Δ40	Δ27									
		PL	10.4		PL	65NL 5.8 PY 65L 2.2 BSb 9L 2.4	—	—	X30	—	—	X30	—	—	X30	—	—	X30	—	—	X30									
		ASD	10.5			65NL 5.9 65L 2.2 9L 2.4	—	—	X30	—	—	X30	—	—	X30	—	—	X30	—	—	X30									
		SKV	10.0	SKV 5L 3.0		65L 2.6 65L 2.0 9L 2.4	—	—	X10	—	—	X10	—	—	X10	—	—	X10	—	—	X10									
	T7	SW	5.6		SW	9L 2.1 9L 1.1 9L 2.4	Δ26	Δ33	Δ52	Δ26	Δ33	Δ52	Δ26	Δ33	Δ52	Δ26	Δ33	Δ52	Δ26	Δ33	Δ52									
		SR	10.1		SR	5NL 3.6 KK 65NL 3.4 9L 3.1	—	—	X81	—	—	X81	—	—	X81	—	—	X81	—	—	X81									
	T5	TH	5.5		TH	PCM 2.0 PY 9L 1.1 9L 2.4	Δ18	Δ26	Δ44	Δ18	Δ26	Δ44	Δ18	Δ26	Δ44	Δ18	Δ26	Δ44	Δ18	Δ26	Δ44									
	T4	LS SPS	7.8		LS	9L 3.4 65L 2.0 9L 2.4	X5	X6	X10	X5	X6	X10	X5	X6	X10	X5	X6	X10	X5	X6	X10									
	T1	KK.TEST			KK	65NL SS 9NL												KK	6	10	20	6	10	20	6	10	20			
		KKOBS				65NL 9NL													3	3	3	3	3	3	3	3	3			
	T2	PYMISC			PP	9NL BSb 9NL	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5									
	T4	NWWTKE				NNW 9NL												NWW	1	1	1									
	T2	BSTKE				9NL									BS	1	1	1	1	1	1									
EXSECTME CIRCUIT	T1	KK	10.5			9NL 2.4 SS 9NL 8.1																								
	T3	PL	10.4		PL	65NL 5.8 PY 65L 2.2 BSb 9L 2.4	X1	X3	X9	X1	X3	X9	X1	X3	X9	X1	X3	X9	X1	X3	X9									
	T7	SW	8.2			65NL 3.8 65L 2.0 9L 2.4	X1	X3	X9	X1	X3	X9	X1	X3	X9	X1	X3	X9	X1	X3	X9									
		SW				65NL 65NL 9NL	2	4	6	2	4	6	2	4	6	2	4	6	2	4	6									
						SUB TOTAL · 4 db	108	133	153	108	133	153	130	166	210	130	166	210	130	166	210									
						Δ 6 db	117	165	195	117	165	195	180	233	268	180	233	268	180	233	268									
						X 11 db	17	36	281	17	36	281	42	134	504	69	166	580	125	279	786									
						NL	7	9	11	7	9	11	16	22	34	17	23	35	18	24	36									
						GRAND TOTAL	249	343	640	249	343	640	368	555	1016	396	588	1093	453	702	1300									

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T2	BS ~ BSb ~ PY



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		PY	3 3			PY 65L 22	BSb 9L 1 1	166	221	218	166	221	218	166	221	218	BS														
		PY	3 3			65L 2 2	9L 1 1	30	24	33	30	24	33	30	24	33															
	T2	PY	6 9			65NL46	9NL 2 3	93	64	114	93	64	114	93	64	114															
		LP-2	7.6	LP 9L 1.6	LP 65L 2.9	PY 65L 2.0	9L 1.1	—	27	57	—	27	57	—	27	57															
		LP-1	10 0		65L 2 9	65L 4 8	9NL 2 3	31	53	130	31	53	130	31	53	130															
		IM	8 4	IM 5NL 5 1		65L 2.2	9L 1.1	26	46	102	26	46	102	26	46	102															
		LS	5 3	LS PCM 2 0		65L 2 2	9L 1 1	20	43	72	20	43	72	20	43	72															
		LS-SPS	10 5		9L 3 6	65NL 46	9NL 2 3	10	12	22	10	12	22	10	12	22															
		LS	10.5		9L 3 6	65NL46	9NL 2 3	—	—	16	—	—	16	—	—	16															
		DM	8 6	DM 9L 2 3	9L 3.2	65L 2.0	9L 1.1	—	—	13	—	—	13	—	—	13															
	T4	BK	9 4		BK 9NL6 1	65L 2 2	9L 1 1	31	11	34	31	11	34	31	11	34															
		BCH	9.0		PCM 2 0	65NL46	9NL2.4	—	—	16	—	—	16	—	—	16															
		RID	8 8	RID 65L 2.5	9L 3 2	65L 2 0	9L 1 1	—	—	14	—	—	14	—	—	14															
		SDM	10 4	SDM 65L 4 1	9L 3 2	65L 2 0	9L 1 1	—	—	10	—	—	10	—	—	10															
		NWW	6 5			NWW 9NL 6 5											BS	47	37	71	NWW										
		PK	4 7			PK 9L 4 7												—	14	44	PK										
		PTN	10 8	9L 2 8	NWW 9L 0.3	NWWb 65L 3 0	9L 4 7											—	30	—	—	30	PTN								
		PKN	4 4			PKN PCM 2.0	PY 9L 2 4	47	51	74	47	51	74	47	51	74															
		PKN	7.6		PKN 9L 4 0	65L 2 0	BSb 9L 1 1	—	—	17	—	—	17	—	—	17															
		CP	9 7		CP 65L 6 6	65L 2 0	9L 1 1	48	20	58	48	20	58	48	20	58															
		BN	8 4		65L 2.2	9L 3 8	PY 9L 2 4	—	—	26	—	—	26	—	—	26															
	T6	KC	9 0		PCM 2 0	PY 65NL46	BSb 9NL 2 4	31	32	63	31	32	63	31	32	63															
		PS	8 5	PS 9L 1 1	BN 9L 1.2	KN 9L 3 8	PY 9L 2 4	—	—	32	—	—	32	—	—	32															
		ON-2	10 0		ON2 9L 3 6	PCM 2 0	9NL 4 4	—	—	10	—	—	10	—	—	10															
		ON-1			ON1 65L 4 2	9L 3 0	9L 2 4	—	—	17	—	—	17	—	—	17															
		HM	9 1	HM 65L 4 3	PL 65L 2 8	PY 9L 1.1	BSb 9L 1.1	—	22	54	—	22	54	—	22	54															
		KK	4 3			KK 9NL2 4	SS 9L 1 9							KK	33	30	44														
		KK	7 8			65NL3 4	9NL 4 4							KK	88	66	88														
		KK	2.7			9L 1 0	9L 1.7							KK	57	66	138														
	T1	TOLL	7.8			65NL3 4	9NL 4 4							TOLL	34	39	77														
		SR	10.4		SR 5NL 3 6	9NL2 4	9NL 4.4							SR	102	93	195														
		BP	7 1			5NL2.7	SS 9NL 4.4							BP	44	34	87														
		PTW	11 0		PTW 5NL 7 7	65L 2 2	9L 1 1	13	69	162	13	69	162	13	69	162															
		SS	4 4				9NL 4 4							SS	43	61	184														
		PL	4 6		PL 9L 1 5	PY 65L 2 0	BSb 9L 1 1	29	27	34	29	27	34	29	27	34															
	T3	PL	9 1		65NL5 8	65L 2 2	9L 1 1	72	60	156	72	60	156	72	60	156															
		MM	8.4	MM 65L 2 7	65L 2 6	65L 2 0	9L 1 1	—	—	33	—	—	33	—	—	33															
		ASD	9 2		ASD 65NL5 9	65L 2 2	9L 1 1	12	50	106	12	50	106	12	50	106															
		SKV	7.7	SKV 65L 2 0	65L 2 6	65L 2.0	9L 1.1	—	41	88	—	41	88	—	41	88															
	T7	SW	6 0		SW 65L 3 8	9L 1 1	9L 1 1	26	30	38	26	30	38	26	30	38															
		SW	6 9		65L 3 8	65L 2 0	9L 1 1	117	102	198	117	102	198	117	102	198															
		TC	8.9	TC 5L 3 1	65L 3.6	9L 1 1	9L 1.1	—	11	38	—	11	38	—	11	38															

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T2	BS ~ BSb ~ PY

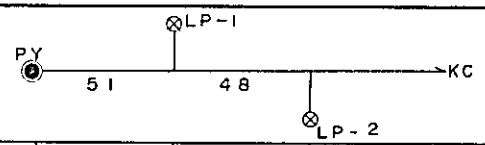


KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90		'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		TH	5 3	TH	PCM 2.0	PY 65L 2.2	BS.b ·9L 1 1					TH		Δ34	Δ42	Δ56	BS														
		TH	8 9		PCM 2.0	65NL 4.6	9NL 2.3					TH		X40	X34	X69	〃														
	T5	BC	10 3	BC 5NL 5.0	PCM 2.0	65L 2.2	9L 1 1					BC		—	—	X24	〃														
		DK	8 6	9NL 3 3	PCM 2.0	65L 2.2	9L 1.1					DK		—	—	X28	〃														
		PSR	8 8	PSR 65L 2.4 BC 9L 1 1	PCM 2.0	65L 2 2	·9L 1.1					PSR		—	—	X10	〃														
		BKT	9 4	BKT 65L 2.8 DK 9L 1.3	PCM 2 0	65L 2.2	·9L 1 1					BKT		—	—	X14	〃														
		CHW	9 3	CHW 5L 4 0	PCM 2 0	65L 2.2	9L 1 1					CHW		—	X10	X39	〃														
		KKTEST				65NL	9NL					KKTEST		20	24	56	〃														
	T1	KKOBS				65NL	9NL					OBS		3	3	3	〃														
	T2	PYMISC				·65NL PU	9NL	6	6	6	6	6	6	6	6	6	〃														
EXSELTIVE CIRCUIT		SR	10 4		SR 5NL 3.6	KK 9NL 2.4	SS ·9NL 4 4					SR		11	18	35	〃														
	T1	KK	7.8			65NL 3.4	9NL 4 4					KK		X26	X50	X70	〃														
		SS	4 4				9NL 4 4					SS		X 4	X 6	X10	〃														
		〃										SS		1	2	5	〃														
	T7	SW			SW 65NL	65NL	BS.b 9NL	12	17	37	12	17	37	12	17	37	〃														
	T3	PL	9.1		PL 65NL 5 8	65L 2.2	9L 1 1	X3	X5	X10	X3	X5	X10	X 3	X 5	X 10	〃														
						SUB TOTAL	• 4db	166	221	218	166	221	218	223	287	356														
							Δ 6db	152	175	251	152	175	251	219	247	351														
							X 11db	474	556	1464	474	556	1464	855	949	2 359														
							NL	18	23	43	18	23	43	53	70	142														
						GRAND TOTAL		810	975	1976	810	975	1976	1350	1553	3 208														

(LP − 1)

NO (1/2)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T2	LP-1 ~ PY

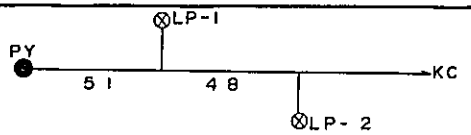


KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (db)	LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT	T2	PY	3.1	PY 65L 3.1	°170	°184	°221	LP-1																GENERAL CIRCUIT
		PY	6.0	65NL 6.0	△34	△21	△38	•																
		PY	6.0	65NL 6.0	X35	X75	X102	•																
		BS	10.0	BS 9NL 2.3 BSb 65L 4.8 65L 2.9	X31	X53	X130	•																
		NN	10.6	NN 9L 2.4 65L 2.2 65NL 6.0	—	X14	X39	•															T2	
		IM	11.1	IM 5NL 5.1 65NL 6.0	X10	X56	X105	•																
	T6	PKN	5.1	P KN PCM 2.0 65L 3.1 LP-1	△39	△66	△82	— 28 49	LP-2								9NL 3.9 LP-2			3.9	LP-2		
		PKN	10.4	P KN 9L 4.4 65NL 6.0	—	X10	X19	LP-1 •																
		CP	8.2	CP 65L 3.9 ASD 9L 1.4 65L 2.9	X26	X60	X84	•																
		BN	8.9	BN 65L 2.2 PKN 9L 3.8 65L 2.9	—	—	X34	•																
		PS	9.0	PS 9L 1.2 9L 1.1 9L 3.8 65L 2.9	—	X22	X40	•																
		ON-2	8.7	ON-2 9L 3.6 PCM 2.0 65L 3.1	—	—	X26	•																
		ON-1	9.3	ON-1 4.2 • 2.0 65L 3.1	—	—	X32	•															T6	
				LP-1	X13	X36	X58	X13	X36	X58	KC						9NL 3.9	9NL 4.8 KC		8.2	KC		
					—	X35	X74	—	X37	X74	HM						9NL 3.9	9NL 1.5 KC	65L 3.4 HM	8.8	HM		
	T4	LS	5.1	LS PCM 2.0 PY 65L 3.1	△14	△47	△55	LP-1																
		LS	9.6	9L 3.6 65NL 6.0	—	X11	X25	•																
		LS.SPS	9.6	9L 3.6 65NL 6.0	X6	X12	X19	•																
		NWW	6.8	NWW 9L 1.6 NWb 9L 2.3 PY 65L 2.9	X13	X18	X30	•																
		BK	9.2	BK 9NL 6.1 65L 3.1	X22	X22	X38	•																
		DM	8.4	DM 9L 2.3 9L 3.2 65L 2.9	—	—	X15	•																
		RS	10.0	RS 9L 5.2 9L 3.2 9L 1.6	—	—	X10	•															T4	
		PK	7.7	PK 9L 2.9 9L 3.2 9L 1.6	—	—	X13	•																
		RID	8.6	RID 9L 2.5 9L 3.2 65L 2.9	—	—	X22	•																
		SDM	10.3	SDM 65L 4.2 • 9L 3.2 65L 2.9	—	—	X12	•																
		PTN	8.3	PTN PCM 2.0 9L 3.4 65L 2.9	—	—	X10	•																
					—	—	X11	—	—	X11	BCH						• 9L 1.6	LP-2 9L 1.5	RC • 9NL 6.4 BCH	9.5	BCH		
	T1	KK	6.1	KK 65L 3.2 PY 65L 2.9	△35	△39	△51	LP-1																
		KK	11.0	5L 5.0 65NL 6.0	X48	X70	X82	•																
		KK TOLL	3.2	9L 1.7 9L 1.5	°33	°66	°120	•																
			11.0	5L 5.0 65NL 6.0	X20	X39	X68	•																
		SR	9.3	SR 5L 6.4 65L 2.9	X63	X111	X204	•																
		BP	10.2	BP 65NL 2.1 SS 9L 2.1 PY 65NL 6.0	X10	X26	X61	•																
		PTW	10.5	PTW 5L 4.5 65NL 6.0	—	X76	X158	•																
		SS	8.1	SS 9L 2.1 65NL 6.0	—	X41	X112	•																
		PL	4.4	PL 9L 1.5 65L 2.9	△26	△25	△38	•																
		PL	10.0	PL 9NL 4.0 65NL 6.0	X42	X72	X158	•																
	T3	MM	11.0	MM 65NL 5.8 • 65L 2.8 65L 2.9	—	X12	X43	•																
		ASD	9.0	ASD 65NL 5.9 PY 65L 3.1	—	X57	X105	•																
		SKV	11.0	SKV 5NL 5.3 PL 65L 2.8 65L 2.9	—	X48	X88	•																
		SW	5.0	SW 9L 2.1 • 65L 2.9	△21	△32	△38	•																
	T7	SW	10.0	SW 65L 4.0 65NL 6.0	X39	X105	X183	•																
		TC	7.9	TC 5L 3.1 9L 1.9 65L 2.9	—	X21	X38	•																
		TK	11.0	TK 9L 4.3 SW 5L 3.8 PY 65L 2.9	—	—	X11	•																

NO 60

(L P − I)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T2	LP-1 ~ PY

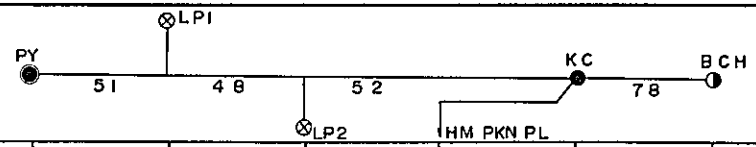


KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d b)				LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT		TH	5 1			THPCM 20	PY65L 31	Δ25	Δ50	Δ62	LP1																			
		TH	8 0			• 20	65NL 6.0	X26	X45	X80	•																			
	T5	BC	10 1		BC 5NL 50	• 20	65L 31	—	—	X10	•																			
		DV	8 4		PK.9NL 33	• 20	65L 31	—	—	X11	•																			
		CHW	9 1		CHW 5L 40	• 20	65L 31	—	—	X34	•																			
	T1	KUTEST			KK 5NL	PY65NL		10	24	48	•																			
		KKOBS				• PY •		3	3	3	•																			
	T2	PUMISC				PY •		6	6	6	•																			
EXSECTIVE CIRCUIT	T1	KK	11 0		KK 5L 50	PY65NL 60		X1	X3	X9	•																			
	T3	PL	10.0		PL 9NL 40	PY • 60		X1	X3	X9	•																			
	T7	SW	10.0		SW 65L 40	• 60		X1	X3	X9	•																			
					SUB TOTAL	• 4 db		203	250	341																				
						Δ 6 db		194	280	354																				
						X 11 db		395	1085	2278	13	99	192	13	71	143														
						NL		19	33	52																				
					GRAND TOTAL			811	1648	3030	13	99	192	13	71	143														

(LP2)

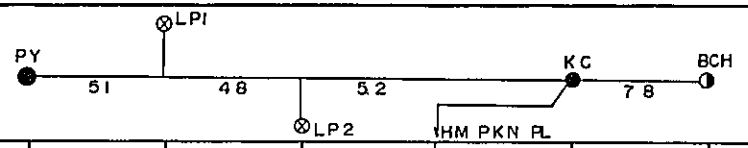
NO (1/2)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T2	LP2 ~ KC LP2 ~ LP1



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (db)	LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT	T2	PY	20	PY PCM BCH 2.0		Δ32	Δ31	▽42 Δ46	Δ32	Δ31	▽42 Δ46	Δ32	Δ31	▽42 Δ46	Δ32	Δ31					GENERAL CIRCUIT
		PY		PY 65NL LP1 9NL LP2 9NL BCH 2.0	1	—	—	1	—	—	1	—	—	1	—	—					
		IM	71	IM 5NL 5.1 PY PCM 2.0	—	X10	X30	—	X10	X30	—	X10	X30	—	X10	X30					
		BS	89	BS 9NL 2.3 BSb 65NL 4.6 PY PCM 2.0	—	—	X16	—	—	X16	—	—	X16	—	—	X16					
		LP1	95	LP1 9L 1.6 LP2 9L 1.5 KC 9NL 64			LP1	—	—	X11	—	—	X11	—	—	X11	BCH 9L 4.3 KC 9NL 6.4 BCH	10.7	BCH	T4	
	T1	KKTOL	39	KK 9L 1.9 PY PCM BCH 2.0	9	·25	·40	· 9	·25	·40	· 9	·25	·40	· 9	·25	·40					
																	9L 2.3 KC 9L 3.2 HM ·65L 3.0 PKN 5L 4.0 ONI	(110) 12.5	ONI-BCH		
							LP1	—	X35	X74	—	X35	X74	—	—	X10	LP1 9NL 3.9 LP2 ·9L 1.6 KC ·65L 3.4 KM	8.8	HM		
													HM 61	—	X35	X74	LP2 ·9NL 4.3 KC ·65L 3.4 HM	7.7	HM		
											LP2	—	35	—	X35	X61					
													HM Δ74	Δ39	Δ53		·9L 1.6 9L 1.7 9L 1.7 PKN	5.0			
													PKN X21	Δ59	Δ53	Δ74			PKN		
												—	X14				·9L 1.6 ·65L 3.2 65L 3.2	8.0	PKN	T6	
													PKN X66	—	X14	X21					
												—	X55				9L 1.6 65L 3.2 65L 2.3 CPb 5L 1.2	8.3	CP		
													CP X10	—	X55	X66					
												—	—				·9L 1.6 9L 1.7 KM 9L 1.5 PKN 65L 4.1 PS	8.9	PS		
													PS X15	—	—	X10					
												—	—				9L 1.6 65L 5.2 65L 3.0 9L 3.4 ON2	11.2	ON2		
													ON2 X34	—	—	X15					
												—	X10				9L 1.6 ·65L 3.2 65L 3.0 5L 4.0 ONI	11.8 (110)	ONI		
													ONI Δ30	—	X10	X34					
		PY	20	PY PCM 2.0	Δ36	Δ27	Δ30	Δ36	Δ27	Δ30	Δ36	Δ27	Δ30								
	T2	PY	20	· 2.0	X48	X43	X53	X48	X43	X53	X48	X43	X53				KC ·				
		IM	71	IM 5NL 5.1 PCM 2.0	X31	X58	X86	X31	X58	X86	X31	X58	X86				·				
		BS	90	BS 9NL 2.4 BSb 65NL 4.6 · 2.0	X31	X32	X63	X31	X32	X63	X31	X32	X63				·				
		NN	108	NN 9NL 3.8 BS 9NL 5.5 · 2.0	—	—	X14	—	—	X14	—	—	X14				·				
	T1	KKTOL	39	KK 9L 1.9 · 2.0	·47	·61	·89	·47	·61	·89	·47	·61	·89				·				
		KK	39	9L 1.9 · 2.0	Δ61	Δ68	Δ84	Δ61	Δ68	Δ84	Δ61	Δ68	Δ84				·				
	T4	LS	40	LS PCM 7.0 PY · 2.0	Δ27	Δ41	Δ43	Δ27	Δ41	Δ43	Δ27	Δ41	Δ43				·				
		LS	40	· 2.0	—	—	X12	—	—	X12	—	—	X12				·				
		NWW	59	NWW 9L 1.6 NNb 9L 2.3 · 2.0	X10	—	X11	X10	—	X11	X10	—	X11				·				
		DM	10.2	DM 9NL 6.2 LS PCM 2.0 · 2.0	—	—	X10	—	—	X10	—	—	X10				·				
		RID	91	RID 9NL 7.1 LS · PY · 2.0	—	X11	X31	—	X11	X31	—	X11	X31				·				
											LP2	X21	X44	X61			·	LP2 9NL 4.3 KC	4.3	KC	T6
			(40)				LP1				X13	X36	X58				· — X11 X30	· 9NL 6.4	6.4		
		PY	45	PY (133) 65L 2.9 LP1 9L 1.5	· 133	· 187	· 227	·133	· 187	· 227	LP2										
		PY	4.5	65L 2.9 9L 1.5	Δ34	Δ23	Δ31	Δ34	Δ23	Δ31	·										
	T2	PY	99	·65NL 6.0 ·9NL 3.9	—	X22	X32	—	X22	X32	·										
		BS	76	BS 9L 1.1 BSb 65NL 2.0 ·65NL 2.9 9L 1.6	—	X27	X57	—	X27	X57	·										
		IM	95	IM 5NL 5.1 PY ·65L LP1 1.5	—	X45	X72	—	X45	X72	·										
		LP1	39	LP1 3.9			LP1	—	X28	X49	·										
	T4	LS	49	LS PCM 2.0 PY 9L LP1 1.5	Δ14	Δ35	Δ40	Δ14	Δ35	Δ40	·										

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T2	LP2 ~ KC LP2 ~ LPI

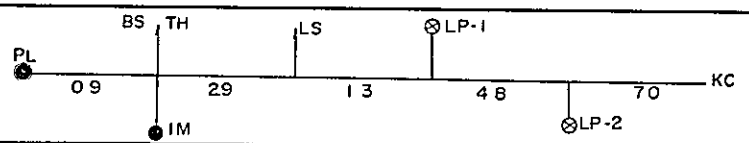


KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d·b)	LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT	T4	LS SPS	102	LS 9L 34 PY 65L 2.9 LPI 9NL 3.9	X5	X10	X14	X5	X10	X14	LP2													
		RID	86	RID 9L 25 9L 32 PY 9L 14 9L 1.5	—	—	X23	—	—	X23	・													
		KK	59	KK 9L 17 PY 65L 2.7 LPI 9L 1.5	Δ40	Δ37	Δ25	Δ40	Δ37	Δ25	・													
	T1	KK	90	5L 4.8 65L 2.7 9L 1.5	—	X40	X20	—	X40	X20	・													
		KK TOLL	(4.0) 4.6	9L 17 (22) 9L 1.4 9L 1.5	・22	・52	・80	・22	・52	・80	・													
			9.0	5L 4.8 65L 2.7 9L 1.5	X14	X31	X46	X14	X31	X46	・													
		SR	10.6	SR 5L 6.4 65L 2.7 9L 1.5	—	—	X66	—	—	X66	・													
		BP	8.4	BP 65NL 2.1 SS 9L 2.1 PY 65L 2.7 LPI 9L 1.5	—	X12	X36	—	X12	X36	・													
		PTW	8.5	PTW 5L 4.5 PY 65L 2.7 LPI 9L 1.5	—	X41	X71	—	X41	X71	・													
		SS	9.5	SS 9NL 5.3 65L 2.7 9L 1.5	—	X16	X54	—	X16	X54	・													
	T3	PL	5.7	PL 9L 1.5 65L 2.7 LPI 9L 1.5	Δ18	Δ42	Δ26	Δ18	Δ42	Δ26	・													
		PL	10.2	65NL 5.8 65L 2.9 9L 1.5	—	X22	X64	—	X22	X64	・													
		ASD	10.3	ASD 65NL 5.9 65L 2.9 LPI 9L 1.5	—	X20	X44	—	X20	X44	・													
		SKV	8.8	3KV 65L 2.0 PL 65L 2.6 65L 2.7 9L 1.5	—	X18	X38	—	X18	X38	・													
	T7	SW	5.0	SW 9L 2.1 PY 9L 1.4 LPI 9L 1.5	Δ24	Δ45	Δ37	Δ24	Δ45	Δ37	・													
		SW	8.0	65L 3.8 65L 2.7 9L 1.5	—	—	X30	—	—	X30	・													
	T5	TH	5.1	TH PCM 2.0 9L 1.6 9L 1.5	Δ20	Δ44	Δ56	Δ20	Δ44	Δ56	・													
		TH	9.0	・ 2.0 65L 5.1 9NL 3.9	—	—	X14	—	—	X14	・													
	T1	KKTEST		KK 5NL 65NL 9NL	6	18	30	6	18	30	・													
		KK OBS		・ ・ ・	3	3	3	3	3	3	・													
	T2	PYMISC		PY 65NL 9NL	5	5	5	5	5	5	・													
		LPI TKE		LPI ・ LPI				1	1	1	・													
EXSECTNG CIRCUIT	T1	KK	9.0	KK 5L 4.8 65L 2.7 9L 1.5	X11	X23	X34	X11	X23	X34	・													
	T5	PL	10.2	PL 65NL 5.8 65L 2.9 9L 1.5	X1	X3	X9	X1	X3	X9	・													
	T7	SW	8.0	SW 65L 3.8 65L 2.7 9L 1.5	X1	X3	X9	X1	X3	X9	・													
				SUB	・ 4 db CCT			211	325	436	211	325	436	56	86	129				9	25	40				
					Δ 6 db			▽42 320	594	403	▽42 320	394	403	▽42 209	221	262	39	53	74	▽42 62	32	31				
				TOTAL	X 11 db			152	487	1059	165	586	1251	154	383	765		149	491		21	118				
					NL			15	26	38	16	27	39	1						1						
				GRAND TOTAL				740	1232	1936	754	1332	2129	462	590	1149	39	202	365	98	78	189				

(IM)

NO (1/2)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T2	IM ~ PL

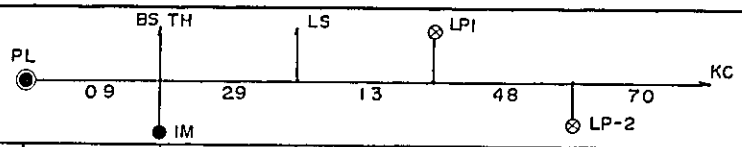


KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)					'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d b)				LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT		PY	4.0				PY	65NL 4.0	*174	*206	*208	IM																			
	T2	PY	5.1					5NL 5.1	Δ_{30}	Δ_{25}	Δ_{29}																				
		PY	5.1					5NL 5.1	X_{41}	X_{73}	X_{87}																				
		BS	8.4		BS 9L 1.1		BS 65L 2.2	5NL 5.1	X_{26}	X_{46}	X_{102}																				
		NN	9.7		NN 9L 2.4		65L 2.2	5NL 5.1	—	—	X_{27}																				
	T4	LS	6.0				LS PCM 2.0	65NL 4.0	Δ_{24}	Δ_{53}	Δ_{50}																				
		LS	8.7				9L 3.6	5NL 5.1	—	—	X_{16}																				
		NWW	9.0		9L 1.6		NWb 9L 2.3	5NL 5.1	—	—	X_{26}																				
		BK	10.1				9NL 6.1	65NL 3.0	—	—	X_{26}																				
		DM	8.5		9L 2.3		9L 3.2	5L 3.0	—	—	X_{10}																				
		RID	8.7		RID 9L 2.5		LS 9L 3.2	5L 3.0	—	—	X_{26}																				
		BCH	7.1				BCH PCM 2.0	·5NL 5.1	—	X_{10}	X_{30}																				
	T6	DKK	6.0				PCM 2.0	65NL 4.0	Δ_{33}	Δ_{56}	Δ_{67}																				
		PKN	9.3				9L 2.2	5NL 5.1	—	X_{14}	X_{22}																				
		CB	8.5		CP 65L 3.9		ASD 65L 2.6	65L 2.0	X_{20}	X_{34}	X_{66}																				
		BN	10.2		65L 2.2		DKN 9L 4.0	65NL 4.0	—	—	X_{29}																				
		PS	10.3		PS 9L 2.3		9L 4.0	65NL 4.0	—	X_{22}	X_{34}																				
		SMP	10.2		SMP PCM 2.0		9L 4.2	·65NL 4.0	—	—	X_{22}	IM																			
		HM	8.9		HM 65L 4.3		PL 65L 2.6	65L 2.0	—	X_{33}	X_{62}																				
		ON2	10.7		9L 3.6		PCM 2.0	5NL 5.1	—	—	X_{16}																				
		ON1	10.4		65L 2.4		9L 4.0	65NL 4.0	—	—	X_{18}																				
		KC	7.1				KC PCM 2.0	5NL 5.1	X_{31}	X_{58}	X_{86}																				
	T1	KK	5.2				KK 65L 3.2	65L 2.0	Δ_{44}	Δ_{29}	Δ_{37}																				
		KK	10.1				·5L 5.0	·5NL 8.1	X_{44}	X_{66}	X_{68}																				
		KK TOLL	3.7				9L 1.7	·65L 2.0	*38	*80	129																				
			10.1				5L 5.0	5NL 5.1	X_{23}	X_{46}	X_{73}																				
		SR	10.6				5L 6.6	65NL 4.0	—	X_{69}	X_{105}																				
		BP	9.3		BP 65NL 2.1		SS 9L 2.1	5NL 5.1	X_{12}	X_{32}	X_{65}																				
		PTN	9.6				PTW 5L 4.5	·5NL 5.1	—	X_{73}	X_{128}																				
		SS	10.4				SS 9NL 5.3	5NL 5.1	—	X_{40}	X_{94}																				
	T3	PL	5.7				PL 9L 1.7	·65NL 4.0	Δ_{27}	Δ_{22}	Δ_{24}																				
		PL	10.9				·65NL 5.8	·5NL 5.1	X_{28}	X_{64}	X_{120}																				
		MM	10.6		MM 65L 2.7		65L 2.8	5NL 5.1	—	X_{12}	X_{38}																				
		ASD	11.0				65L 5.9	5NL 5.1	—	X_{51}	X_{82}																				
		SKV	10.7		SKV 5L 3.0		65L 2.6	·5NL 5.1	—	X_{43}	X_{68}																				
	T7	SW	5.8				SW 65L 3.8	65L 2.0	Δ_{39}	Δ_{34}	Δ_{36}																				
		SW	9.1				65L 4.0	·5NL 5.1	X_{30}	X_{90}	X_{135}																				
		SW SPS	9.1				65L 4.0	5NL 5.1	X_{7}	X_{14}	X_{21}																				
		TC	10.9		TC 5L 3.1		65L 3.8	65NL 4.0	—	X_{11}	X_{30}																				
	T5	TH	6.0				PCM 2.0	65NL 4.0	Δ_{24}	Δ_{51}	Δ_{55}																				
		TH	8.7		TH 65L 3.1		65L 3.6	65L 2.0	X_{22}	X_{36}	X_{57}																				
		BC	11.0		BC 5NL 5.0		PCM 2.0	65NL 4.0	—	—	X_{10}																				
		DK	10.4		9NL 3.3		PCM 2.0	5NL 5.1	—	—	X_{22}																				
		CHW	10.0		5L 4.0		PCM 2.0	·65NL 4.0	—	—	X_{32}																				
		KK TEST					·5NL	·5NL	12	30	52																				

(1 M)

NO (2/2)

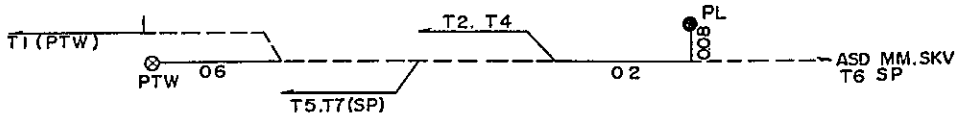
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T2	2M ~ PL



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d b)				LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
EXSECTIV CIRCUIT		KKOBS				5NL	PY 5NL	3	3	3	IM																			
		PYM ISC					5NL	6	6	6	,																			
		KK	10.1			KK 5NL 5.1	5NL 5.1	X 11	X 23	X 34	,																			
		SR				SR 5NL	6.5NL	3	5	10	,																			
		PL	10.9			6.5NL 5.8	5NL 5.1	X 1	X 3	X 9	,																			
		SW				6.5NL	6.5NL	2	3	5	,																			
		LP-2	9.5	IM	5NL 5.1	PY 6.5L 2.9	LPI 9L 1.5	—	X 45	X 72	,																			
		LP-1				LPI 6.5NL 6.0	PY 5NL 5.1	X 10	X 56	X 105	,																			
						SUB TOTAL	. 4 db	212	286	337																				
							Δ 6 db	221	270	298																				
							X 11 db	306	1084	2073																				
							NL	26	47	76																				
						GRAND TOTAL		765	1187	2784																				

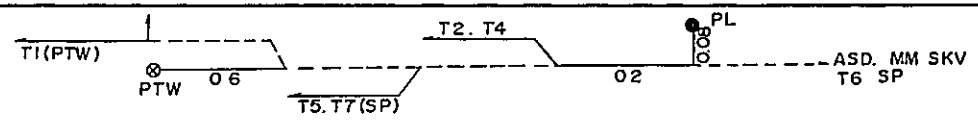
(PL)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T3	PL



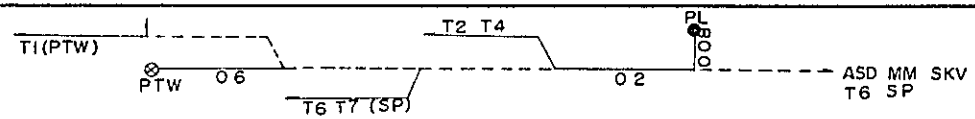
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T1	KK TOLL	3.7				KK 5L 3.7	•114	•122	•213								•114	•122	•218	PL										
			6.2				5NL 6.2	X118	X126	X224								X118	X126	X224	•										
		KK	3.1				5L 3.1	△76	△74	△98								△76	△74	△98	•										
		KK	3.1				·5L 3.1	△48	△54	△56								△48	△54	△56	•										
			6.2				·5NL 6.2	X344	X256	X296								X344	X256	X296	•										
		KK MISC					5NL	4	4	4								4	4	4	•										
		KK,TEST					•	40	44	38								40	44	38	•										
		SR	3.5			S R 5L 2.0	5L 3.5	△75	△90	△114								△75	△90	△114	•										
			9.8			5NL 3.6	·5NL 6.2	X462	X408	X720								X462	X408	X720	•										
		BP	5.0			B P 65NL 2.7	65NL 2.3	△19	△53	△27								△19	△53	△27	•										
			10.4			5L 4.2	·5NL 6.2	X48	X20	X80								X48	X20	X80	•										
		SS	4.9			S S ·5L 2.6	·65L 2.3	△33	△23	△31								△33	△23	△31	•										
			10.6			·5NL 4.4	5NL 6.2	X24	X56	X144								X24	X56	X144	•										
		PTW	2.9			PTW 5NL 2.9					PTW	△21	△39	△53				△21	△39	△53	•										
			2.9			5NL 2.9					〃	X90	X278	X564				X90	X278	X564	•										
	T2	PY	5.8			PY 9L 4.0									PY	△68	△56	△80	△68	△56	△80	•										
		PY	5.8			〃 5.8									PY	△64	△54	△41	△64	△54	△41	•										
			5.8			〃 5.8									•	X156	X98	X156	X156	X98	X156	•										
		BS	5.9	B S 9L 1.1		P SR 65L 2.0	65L 2.8								BS	△29	△27	△34	△29	△27	△34	•										
			9.1	·9L 1.1		·65L 2.2	·65NL 5.8								•	X72	X60	X156	X72	X60	X156	•										
		IM	5.8			I M 5L 3.0	65L 2.8								IM	△27	△22	△24	△27	△22	△24	•										
			9.8			·65NL 3.0	65NL 5.8								•	X28	X64	X120	X28	X64	X120	•										
		LP-1	5.7			L P1 65L 2.9	·65L 2.8								LP-1	△26	△25	△38	△26	△25	△38	•										
			10.0			·9NL 4.2	·65NL 5.8								•	X42	X72	X158	X42	X72	X158	•										
		LP-2	5.7	L P2 9L 1.5		·65L 2.7	9L 1.5								LP-2	△18	△42	△26	△18	△42	△26	•										
			10.2	·9L 1.5		65L 2.9	·65NL 5.8								•	—	X22	X40	—	X22	X40	•										
		NN	5.0	N N ·9L 2.4		P SR ·9L 1.1	· 9L 1.5								NN	△24	△40	△27	△24	△40	△27	•										
			10.4	9L 2.4		65L 2.2	65NL 5.8								•	—	—	X30	—	—	X30	•										
	T4	LS					L S PCM 2.0								LS	△54	△80	△128	△54	△80	△128	•										
		LS					〃 2.0								LS	△19	△31	△54	△19	△31	△54	•										
		NWW	5.2	N WW 9L 1.6		N Wb 9L 2.1	P Y 9L 1.5								NWW	△35	△40	△51	△35	△40	△51	•										
			9.7	·9L 1.6		·9L 2.3	65NL 5.8								•	—	—	X20	—	—	X20	•										
		DM	5.0			D M PCM 2.0	65L 3.0								DM	△30	△36	△22	△30	△36	△22	•										
			9.7	D M 9L 2.3		L S 9L 3.4	·9NL 4.0								•	—	—	X28	—	—	X28	•										
		BK	5.2			B K 9L 2.4	P Y 65L 2.8								BK	△37	△29	△47	△37	△29	△47	•										
			8.4			·9L 2.6	·65NL 5.8								•	X40	X20	X34	X40	X20	X34	•										
		RS	2.0			R S PCM 2.0	P Y PCM —								RS	—	△27	△56	—	△27	△56	•										
		BCH	2.0			B CH PCM 2.0	L S PCM —								BCH	—	△21	△35	—	△21	△35	•										
		PK	2.0			P K PCM 2.0	L S PCM —								PK	—	△31	△41	—	△31	△41	•										
			7.6	P K ·9L 2.9		L S ·9L 3.2	P Y 9L 1.5								•	—	X3	X9	—	X3	X9	•										
		RID	4.7			R ID 9L 2.7	L S PCM 2.0								RID	—	△20	△37	—	△20	△37	•										
		SDM	4.5			S DM 9L 2.5	PCM 2.0								SDM	—	△41	△20	—	△41	△20	•										
			8.2			65NL 6.2	PCM 2.0								•	—	—	X22	—	—	X22	•										
		PTN				P TN PCM 2.0	L S PCM —								PTN	—	△21	△43	—	△21	△43	•										

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T3	PL



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
GENERAL CIRCUIT	T5	TH	5.1	TH 65L 3.1 SW 65L 2.0							TH			Δ88	Δ106	Δ114				Δ88	Δ100	Δ114	PL						
		TH	5.1	65L 3.1 65L 2.0							TH			Δ30	Δ34	Δ43				Δ30	Δ34	Δ43	•						
		•	10.0	5L 4.9 5NL 5.3							•			X128	X102	X184				X124	X102	X184	•						
		PD	6.0	PD PCM 2.0 65L 2.9 9L 1.1							PD			Δ23	Δ33	Δ53				Δ23	Δ33	Δ53	•						
		BC	5.1	BC 9L 1.1 65L 2.9 ·9L 1.1							BC			Δ33	Δ40	Δ23				Δ33	Δ40	Δ23	•						
		•	10.4	5L 2.9 5L 4.5 ·5L 3.0							•			—	—	X54				—	—	X54	•						
		DK	5.2	DK 9L 1.3 65L 2.9 65L 2.0							DK			Δ35	Δ42	Δ27				Δ35	Δ42	Δ27	•						
		•	11.0	9NL 3.3 5L 4.7 5L 3.0							•			—	—	X48				—	—	X48	•						
		NK	6.0	KK PCM 2.0 65L 2.7 ·9L 1.1							NK			—	Δ18	Δ25				—	Δ18	Δ25	•						
		PSR	5.1	PSR 65L 2.4 9L 0.9 ·3L 1.7 3L 1.1							PSR			Δ16	Δ40	Δ36				Δ16	Δ40	Δ36	•						
		•	10.8	65L 2.4 9L 0.9 5L 4.5 ·5L 3.0							•			—	—	X20				—	—	X20	•						
		BKT	6.7(6.0)	BKT 65L 2.4 DK 9L 1.1 5L 1.7 9L 1.1							BKT			—	Δ33	Δ64				—	Δ33	Δ64	•						
		PHW	6.6(6.0)	CHW 5L 3.8 ·9L 1.7 ·9L 1.1							CHW			Δ21	Δ25	Δ30				Δ21	Δ25	Δ30	•						
		•	10.3	5L 3.8 5L 4.5 65L 2.0							•			X22	X28	X98				X22	X28	X98	•						
		MSK	6.0	MSK PCM 2.0 ·65L 2.9 9L 1.1							MSK			—	Δ25	Δ33				—	Δ25	Δ33	•						
		PPJ	4.8	PPJ PCM 2.0 ·9L 1.7 9L 1.1							PPJ			—	Δ18	Δ33				—	Δ18	Δ33	•						
	T7	SW	5.3	SW ·5NL 5.3							SW			Δ82	Δ72	Δ182				Δ82	Δ72	Δ82	•						
		SW	5.3	5NL 5.3							SW			Δ102	Δ123	Δ153				Δ102	Δ123	Δ153	•						
		•	5.3	5NL 5.3							•			X822	X654	X1158				X822	X654	X1158	•						
		SW SPS	5.3	5NL 5.3							SWSPS			X20	X22	X36				X20	X22	X36	•						
		TK	4.6	TK 9L 1.6 5L 3.0							TK			Δ17	Δ38	Δ20				Δ17	Δ38	Δ20	•						
		•	9.9	5L 4.6 5NL 5.3							•			—	X20	X60				—	X20	X60	•						
		TC	5.1	TC ·5L 3.1 ·65L 3.0							TC			Δ24	Δ20	Δ26				Δ24	Δ20	Δ26	PL						
		•	10.4	·5NL 5.1 5NL 5.3							•			X22	X64	X106				X22	X64	X106	•						
EXSECTIVE CIRCUIT	T1	KK	6.2	KK 5NL 6.2	X100	X180	X190													X100	X180	X190	PL						
		•		5NL	25	30	30													25	30	30	•						
		SA	9.8	SA 5NL 3.6 5NL 6.2	X2	X3	X5													X2	X3	X5	•						
		•		5NL ·5NL	27	42	55													27	42	55	•						
		BP	10.4	BP ·5L 4.2 ·5NL 6.2	X1	X3	X9													X1	X3	X9	•						
		SS	10.6	SS 5NL 4.4 5NL 6.2	X3	X5	X10													X3	X5	X10	•						
		PTW	2.9	PTW 5NL 2.9							PTW	X1	X3	X9						X1	X3	X9	•						
	T2	PY	5.8	65NL 5.8													PU	X12	X18	X35	X12	X18	X35	•						
		•		65NL													•	4	7	15	4	7	15	•						
		BS	9.1	BS 9L 1.1 BS 65L 2.2 65NL 5.8													BS	X3	X5	X10	X3	X5	X10	•						
		IM	10.9	IM 5NL 5.1 65NL 5.8													IM	X1	X3	X9	X1	X3	X9	•						
		LP-1	10.0	LP1 65NL 6.0 9NL 4.0													LP-1	X1	X3	X9	X1	X3	X9	•						
		LP-2	10.2	9L 1.5 LP 65L 2.9 65NL 5.8													LP-2	X1	X3	X9	X1	X3	X9	•						
		NN	10.4	NN 9L 2.4 BS 65L 2.2 PY 65NL 5.8													NN	X1	X3	X9	X1	X3	X9	•						

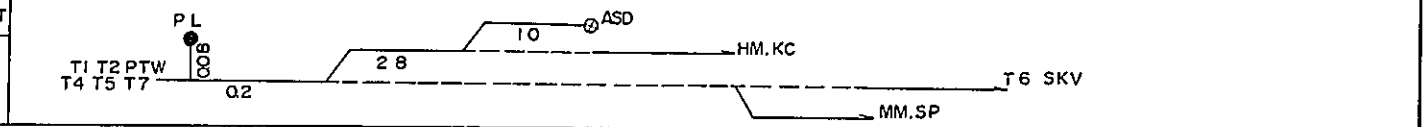
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T3	P L



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
EXSECTIVE CIRCUIT		LS	9.4			LS 9L 36	PY 65NL 58										LS	X1	X3	X9	X1	X3	X9	PL						
		NWW	9.7		NWW 9L 16	NWb 9L 23	65NL 58										NWW	X2	X3	X5	X2	X3	X5	•						
		DM	8.3		DM 9L 23	LS 9L 32	65L 28										DM	X2	X3	X5	X2	X3	X5	•						
		BK	8.4			BK 9L 26	65NL 58										BK	X2	X3	X5	X2	X3	X5	•						
		RS	9.9			RS 9L 52	9L 15										RS	—	X2	X9	—	X2	X9	•						
	T4	BCH	10.7		BCH 9L 47	LS 9L 32	65L 28										BCM	—	X3	X9	—	X3	X9	•						
		PK	7.6		PK 9L 20	LS 9L 32	9L 15										PK	—	X3	X9	—	X3	X9	•						
		RID	8.7		RID 9L 27	9L 32	65L 28										RID	—	X2	X9	—	X2	X9	•						
		SDM	10.1		SDM 65L 41	9L 32	65L 2.8										SDM	—	X3	X9	—	X3	X9	•						
		PTN	12.3 (11.0)		PTN 9L 76	LS 9L 32	9L 15										PTN	—	X2	X9	—	X2	X9	•						
		TH	10.0		TH	5L 47	SW 5NL 53										TH	X12	X23	X30	X12	X23	X30	•						
		PD	10.8		9L 33	5L 45	5L 30										PD	X2	X3	X5	X2	X3	X5	•						
		SC	10.4		5L 29	5L 45	5L 30										BC	X2	X3	X5	X2	X3	X5	•						
		DK	11.0		5NL 33	5L 47	5L 30										DK	X2	X3	X5	X2	X3	X5	•						
		NK	11.0		9L 45	5L 45	65L 20										NK	—	X2	X9	—	X2	X9	•						
	T5	PSR	10.8	65L 24	BC 9L 09	5L 45	6L 30										PSR	X1	X3	X9	X1	X3	X9	•						
		BKT	10.4	65L 28	DK 9L 11	5L 45	65L 20										BKT	—	X3	X9	—	X3	X9	•						
		CHW	10.3		5L 38	5L 45	65L 20										CHW	X1	X3	X9	X1	X3	X9	•						
		MSK	11.1		9L 36	5L 45	5L 30										MSK	—	X2	X9	—	X2	X9	•						
		PPJ	11.0		9L 45	5L 45	65L 20										PPJ	—	X2	X9	—	X2	X9	•						
		SW	5.3			SW	5NL 53										SW	X27	X27	X46	X27	X27	X46	•						
		SW					5NL										SW	107	107	184	107	107	184	•						
	T7	TK	9.5			5L 40	5NL 53										TK	X3	X5	X10	X3	X5	X10	•						
		TC	10.4			5NL 51	5NL 53										TC	X1	X3	X9	X1	X3	X9	•						
						SUB TOTAL	• 4 db	114	122	218											114	122	218								
							Δ 6 db	251	294	326	21	30	53	471	661	762	431	643	804	1174	1637	1945								
							X 11 db	1102	1057	1678	91	281	573	1061	972	1928	364	398	923	2618	2708	5096								
							NL	96	120	177				107	107	184	4	12	20	207	239	381								
						GRAND	TOTAL	1563	1593	2399	112	320	626	1639	1740	2868	799	1053	1747	4113	4706	7640								

(PL)

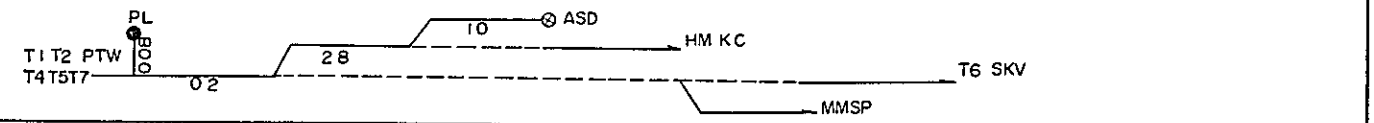
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T3	PL



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T3	ASD	3.7	ASD 5L 3.7	•129	•228	•222	•129	•228	•222	•129	•228	•222	ASD														
		•	3.7	5L 3.7	△17	△30	△41	△17	△30	△41	△17	△30	△41	•														
		•	6.2	·5NL 6.2	X54	X152	X284	X54	X152	X234	X54	X152	X284	•														
		•	6.2	5NL 6.2	6	6	6	6	6	6	6	6	6	•														
		MM	2.7	MM 65L 2.7	•159	•172	•215								•159	•174	•215	MM										
		•	4.0	5L 4.0	△22	△21	△30								△22	△21	△30	•										
		•	6.8	5NL 6.8	X112	X82	X192								X112	X82	X192	•										
		•		5NL	6	6	6								6	6	6	•										
		SKV	3.2	SKV 5L 3.2	—	•215	•254											—	•215	•254	SKV							
		SKV	5.3	5NL 5.3	—	△29	△39											—	△29	△394	•							
		•	5.3	5NL 5.3	—	X140	X252											—	X140	X252	•							
		•		5NL	—	5	5											—	5	5	•							
	T6	PKN	4.6	PKN 65L 4.6	△96	△146	△176											△96	△146	△176	PKN							
		PKN	4.6	65L 4.6	△22	△30	△38											△22	△30	△38	PKN							
		•	4.6	65L 4.6	X32	X54	X102											X32	X54	X102	•							
		CP	5.3	CP 5L 5.3	△48	△48	△56											△48	△48	△56	CP							
		•	9.0	5NL 9.0	X268	X200	X276											X268	X200	X276	•							
		BN	5.7	BN 9L 1.3 PKN 65L 4.4	△20	△17	△22											△20	△17	△22	BN							
		•	7.8	5L 3.4 65L 4.4	X70	X50	X92											X70	X50	X92	•							
		KC	4.4	KC 9L 1.9 HM 9L 2.5	△35	△41	△26	△35	△41	△26				△35	△41	△26	KC											
		•	7.7	65L 3.4 65L 4.3	X28	X26	X46	X28	X26	X46				X28	X26	X46												
		PS	4.7	PS 9L 1.2 BN 9L 1.1 PKN 9L 2.4	△36	△48	△32											△36	△48	△32	PS							
		•	8.5	65L 2.1 65L 2.0 65L 4.4	—	X22	X80											—	X22	X80	•							
		SMP	4.6	SMP PCM 2.0 PKN 9L 2.6	△36	△39	△18											△36	△39	△18	SMP							
		•	8.3	SMP 9L 1.8 PS 65L 2.1 65L 4.4	X30	—	X58											X20	—	X38	•							
		ON-2	4.6	ON2 PCM 2.0 PKN 9L 2.6	—	△19	△31											—	△10	△31	ON-2							
		•	7.8	65L 4.4 9L 3.4	—	X28	X98											—	X28	X98	•							
		ON-1	5.0	ON1 65L 2.6 9L 2.4	—	△24	△39											—	△24	△39	ON-1							
		•	8.4	5L 4.0 65L 4.4	—	X40	X148											—	X40	X148	•							
		HM	2.7	9L 2.7	△28	△33	△49	△28	△33	△49				△28	△33	△49	HN											
		•	9.3	65NL 9.3	X88	X122	X266	X88	X122	X266				X88	X122	X266												
		BYP	4.6	BYP PCM 2.0 PKN 9L 2.6	—	△26	△36											—	△26	△36	BUP							
		LKB	4.6	LKB PCM 2.0 9L 2.6	—	△42	△45											—	△42	△45	LKB							
	T7	SP	5.5	PL 5L 3.8 MM 9L 1.7	△26	△34	△33								△26	△34	△33	SP										
		•	9.7	65NL 5.3 9NL 4.4	—	—	X50								—	—	X50	"										
EXSECTIVE CIRCUIT	T3	ASD	6.2	ASP 5NL 6.2	X11	X23	X34	X11	X23	X34	X11	X23	X34	ASD														
		MM	6.8	MM 5NL 6.8	X15	X28	X40								X15	X28	X40	MM										
		•		5NL	5	7	45								5	7	15											
	T6	SKV	5.3	SKV 5L 5.3	—	X3	X9											—	X3	X9	SKV							
		PKN	4.6	PKN 65L 4.6	X11	X23	X34											X11	X23	X34	PKN							
		CP	9.0	CP 5NL 9.0	X13	X25	X35											X13	X25	X35	CP							
		BN	7.8	BN 65L 3.4 PKN 65L 4.4	X2	X3	X5											X2	X3	X5	BN							
		KC	9.7	KC 65L 3.4 HM 65L 4.3	X12	X23	X30	X12	X23	X30				X12	X23	X30	KC											
		PS	8.5	PS 65L 2.1 BN 65L 2.0 PKN 65L 4.4	X2	X3	X5											X2	X3	X5	PS							

(PL)

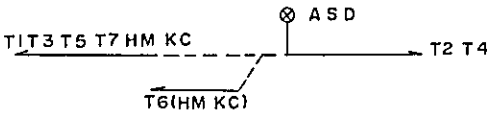
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T3	PL



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
	T6	SMP	10 1	SMP 9L 18 PS 65L 39 PKN 65L 44	X 1	X 3	X 9													X 1	X 3	X 9						
		ON-2	7.8	ON2 9L 34 PKN 65L 44	—	X 3	X 9													—	X 3	X 9						
		ON-1	10 7	ON1 5L 40 5L 67	—	X 3	X 9													—	X 3	X 9						
		HM	9 3	HM · 65NL 93	X 1	X 3	X 9	X 1	X 3	X 9				X 1	X 3	X 9												
		BUP	8 0	BUP 9L 36 PKN 65L 44	—	X 2	X 9													—	X 2	X 9						
		LKB	10 2	LKB . 9L 58 65L 44	—	X 2	X 8													—	X 2	X 8						
	T7	SP	9 7	SP · 9NL 44 MM 65NL 53	X 11	X 23	X 34										X 11	X 23	X 34									
				SUB TOTAL · 4 db	288	617	691	129	228	222	129	228	222				159	174	215		215	254						
				SUB TOTAL Δ 6 db	386	627	911	80	104	116	17	30	41	63	74	75	48	55	68	258	468	527						
				SUB TOTAL X 11 db	751	1086	2223	94	349	669	65	175	318	129	174	351	138	133	316	419	604	1238						
				SUB TOTAL NL	17	24	32	6	6	6	6	6	6				11	13	21		5	5						
				GRAND TOTAL	1442	2354	3657	409	687	1013	217	439	587	192	248	426	356	375	615	677	1292	2024						

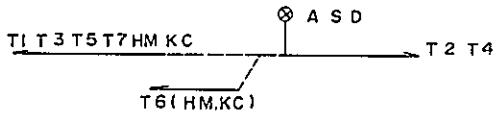
SMP
ON-2
ON-1
HM
BUP
LUB
SP

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T3	A S D



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT	T3	PL	37	PL 5L 37	129	228	222				ASD																				
		PL	37	5L 37	17	30	41																								
		PL	62	5NL 62	54	152	284																								
		PLMISC		5NL	6	6	6																								
		MM	102	MM 5L 40 PL 5NL 62	21	68	133																								
		SKV	90	SKV 5NL 53 5L 37	—	90	138																								
	T1	KK TOLL	58(40)	KK 5L 35	33	102	159																								
			99	5L 37 5NL 62	20	59	89																								
		KK	58	65L 23 5L 35	36	49	60																								
		KK	99	5L 37 5NL 62	78	192	192																								
		KK TEST		5NL 5NL	10	40	66																								
		KK OBS		5NL 5NL	3	3	3																								
		SR	86	SR 5L 5.1 5L 35	108	306	468																								
		BP	96	BP 5L 40 KK 65L 21 5L 35	—	16	50																								
		PTW	91	PTW 5NL 29 5NL 62	14	213	369																								
		SS	92	65NL 34 KK 65L 23 5L 32	—	43	96																								
	T7	SW	55	SW 65L 2.0 PL 5L 3.5	32	43	53																								
		SW	90	5NL 53 5L 37	177	474	708																								
		TK	108	TK 9NL 43 5L 30 5L 35	—	17	37																								
		SP	88	SP 9L 1.7 MM 5L 36 5L 35	—	13	22																								
		TC	84	TC 5L 3.1 SW 65L 1.8 5L 35	—	47	68																								
		SW SPS	90	5NL 53 5L 37	6	17	25																								
											40	35	40																PY	T2	GENERAL CIRCUIT
											16	91	103																PY		
											12	50	106																BS		
											—	51	82																IM		
											—	20	44																LP2		
											—	57	105																LP1		
											—	—	30																NN		
											17	55	64																LS	T4	
											—	—	10																LS		
											—	12	29																NWW		
											—	10	25																DM		
											11	17	25																BK		
											—	—	12																BCH		
											—	—	10																PK		
											—	—	10																RID		
											—	—	12																SDM		
	T5	TH	61	TH 9L 17 SW 9L 09 PL 5L 35	26	49	46				ASD																				
		TH	94	65L 31 5L 28 5L 35	28	76	117																								
		PD	95	PCM 20 65L 31 9L 09 5L 35	—	—	12																								
		BC	88	5L 29 9L 15 9L 09 5L 35	—	10	35																								
		DK	108	9NL 33 65 31 9L 09 5L 35	—	13	33																								
		PSR	85	65L 3.4 BC 9L 1.1 TH PCM 2.0 PY 65L 3.5	—	—	20																								
		BKT		65L 2.8 DK 9L 1.3 〃 2.0 65L 3.0	—	—	11																								
		CHW	89	CHN 5L 39 〃 2.0 65L 3.0	—	30	60																								

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T3	A S D



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T6	PKN	5.2				PKN 65L 5 2		PKN		Δ42	Δ107	Δ135	A S D		
		PKN	5 2				65L 5 2		PKN		—	X 32	X 51			
		CP	8 5				C P 65NL 8 5		CP		X62	X142	X172			
		BN	8.4			BN 65L 3 4	PKN 65L 5 0		BN		X10	X 38	X 58			
		KC	7.6			KC 65L 4.1	MM 5L 3 5	— X23	X45							
		PS	9 1		65L 21	BN 65L 2 0	PKN 65L 5 0		PS		—	X 31	X 51			
		SMP	8 9		9L 1 8	PS 9L 2 1	65L 5 0		SMP		—	X 15	X 37			
		ON2	8 2			ON2 9L 3 4	65L 4 8		ON2		—	X 16	X 56			
		ON1	9 0			ON1 5L 4 0	65L 5 0		ON1		—	X 19	X 67			
		HM	7 8			HM 65L 4 3	PL 5L 3 5	X10	X83	X57						
EXSECTIVE CIRCUIT	T3	PL	6 2				5NL6 2	X11	X23	X34						
	T1	KK	9 9			KK 5L 3 7	5NL6 2	X1	X 3	X 9						
	T7	SW	9 0			SW 5NL5 3	5L 3 7	X1	X 3	X 9						
						SUB TOTAL	• 4 d b	162	330	381						
							Δ 6 d b	111	171	200	42	107	135	57	90	104
							X 11 d b	529	1971	3221	72	293	492	39	308	603
							NL	19	49	75						
						GRAND TOTAL		821	2521	3877	114	400	627	96	398	707

'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90

(S K V)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T3	S K V

T1 T2 T3
T4 T5 T7 HM KC — T6
O SKV

KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d b)	LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT	T3	PL	3.2	PL 5L 3.2	—	*215	*254	SKV																GENERAL CIRCUIT
		″	5.3	5NL 5.3	—	Δ 29	Δ 39	″																
		″	5.3	5NL 5.3	—	X140	X252	″																
		PL MISC		PL MISC 5NL	—	5	5	″																
		MM	9.3	MM 5L 4.0 PL 5NL 5.3	—	X 61	X117	″																
		ASD	9.0	ASD 5L 3.7 5NL 5.3	—	X 90	X138	″																
	T1	KK	5.5	KK 5L 3.5 65L 2.0	—	52	64	″																
		KK	9.0	5L 3.7 5NL 5.3	—	X174	X166	″																
		KK TOLL	9.0	5L 3.7 5NL 5.3	—	X 53	X 77	″																
		KKTEST	3.3	9L 1.3 65L 2.0	—	* 91	*138	″																
		KK OBS		5NL 5NL	—	X 36	X 56	″																
				″ ″	—	3	3	″																
		BP	9.0	SR 5L 5.3 5NL 5.3	—	X267	X399	″																
		PTW	9.0	BP 65L 2.7 KK 5L 3.3 5L 3.0	—	X 14	X 43	″																
		SS	8.2	PTW 5NL 2.9 5NL 5.3	—	X191	X321	″																
			10.9	SS 5NL 4.4 KK 5L 3.5 5L 3.0	—	X 36	X 80	″																
	T2	PY	5.8	PY 65L 2.8 5L 3.0	—	Δ 37	Δ 47	″	SKV															
		″	10.6	PY 65NL 5.3 PL 5NL 5.3	—	X 77	X 86	″																
		BS	7.7	BS 9L 1.1 BSb 65L 2.0 65L 2.6 65L 2.0	—	X 41	X 88	″																
		IM	10.9	IM 5NL 5.1 65L 2.8 5L 3.0	—	X 43	X 68	″																
		LP-2	8.8	LP2 9L 1.5 LP 65L 2.7 65L 2.6 65L 2.0	—	X 18	X 38	″																
		LP-1	11.0	65L 2.9 65L 2.8 5L 5.3	—	X 48	X 88	″																
		NN	10.0	NN 9L 2.4 BSb 65L 2.0 65L 2.6 5L 3.0	—	—	X 10	″																
	T4	LS	5.2	LS PCM 2.0 5L 3.2	—	Δ 50	Δ 53	″																
		NWW	9.3	NWW 9L 1.6 NWb 9L 2.1 PY 65L 2.6 5L 3.0	—	X 10	X 13	″																
		DM	7.7	DM 9L 2.5 LS 9CM 2.0 PY 5L 3.2	—	—	X 25	″																
		BK	10.5	BK 9L 2.4 PY 65L 2.8 5L 5.3	—	X 16	X 23	″																
		BCH	7.3	BCH PCM — LS PCM — PL 5NL 5.3	—	—	X 12	″																
		RID	7.9	RID 9L 2.7 PCM 2.0 5L 3.2	—	—	X 11	″																
		SDM	9.5	SDM 65L 4.3 PCM 2.0 5L 3.2	—	—	X 10	″																
	T5	TH	6.0	TH 65L 3.1 SW 9L 0.9 65L 2.0	—	Δ 70	Δ 61	″																
		″	8.5	65L 2.0 65L 1.8 5L 4.7	—	X 69	X104	″																
		PD	8.0	PD PCM 2.0 65L 3.1 9L 0.9 65L 2.0	—	—	X 10	″																
		BC	8.7	BC 9L 2.9 65L 2.9 9L 0.9 65L 2.0	—	—	X 31	″																
		DK	9.3	DK 5NL 3.3 65L 2.1 9L 0.9 65L 2.0	—	—	X 14	″																
		CHW	8.1	CHW 5L 3.7 9L 1.5 9L 0.9 65L 2.0	—	X 12	X 45	″																
	T6	KC		KC 65L 3.4 HM 65L 4.1 PL 5L 3.5	—	X 34	X 47	SKV												5L 1.8 CP 5L 2.2 PKN	4.0	PKN	T6	
								SKV	—	Δ 75	Δ 95	PKN								5NL 3.0 CP 5NL 3.8 PKN	6.8	″		
								SKV	—	X 34	X 52	″								5NL 3.8 CP	3.8	CP		
								″	—	X140	X164	CP								5NL		CPTKE		
								″	—	1	1	CP TKE								5L 2.2	7.2	BN		
								″	—	X 37	X 54	BN								5NL 3.8 5NL 3.0 PKN 65L 2.0 BN 65L 2.1 PS	11.1	PS		
								SKV	—	X 34	X 47	SKV								5L 3.9 PKN 9L 2.1 PS 9L 1.8 SMP	7.8	SMP		
								SKV	—	X 40	X 59	PS								5NL 3.9 CP 5NL 3.0 PKN 9L 3.6 ON-2	10.5	ON-2		
									—	X 24	X 34	SMP												
									—	X 17	X 54	ON-2												

(SKV)

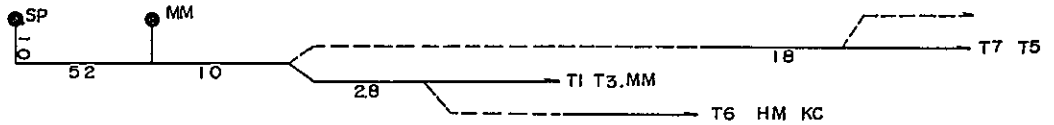
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T3	SKV

T1 T2 T3
T4 T5 T7 HM KC — T6
O SKV

KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (db)				LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT	T6	HM	74			H M 65L 43	P L 5L 31	—	X 81	X 147	SKV	— 37	82	ON-1									5NL 38	C P 5NL 30	P K N 5L 42	O N T		ON-1	T6	
		SW	60			S W 5L 30	5L 30	—	Δ 41	Δ 50	SKV																			
		SW	106			5NL 53	5NL 53	—	X 432	X 630																				
	T7	SW SPS	106			5NL 53	5NL 53	—	X 15	X 22																				
		TK	82	T K 5L 44		65L 18	65L 20	—	X 15	X 32		SKV																		
		SP	84	S P 9L 17	M M 5L 37		5L 30	—	X 11	X 18																				
		TC	89	T L 5L 31		5L 28	5L 30	—	X 42	X 59																				
EXSECTIVE CIRCUIT	T1	KK	90		K K 5L 37		5NL 53	—	X 3	X 9	SKV																			
	T3	PL	53				5NL 53	—	X 3	X 9																				
	T7	SW	106		S W 5NL 53		5NL 53	—	X 3	X 9																				
						SUB TOTAL	• 4 db	306		392																				
							Δ 6 db	279		314		75	95																	
							X 11 db	1999		3251		329	499																	
							NL	44		64		1	1																	
						GRAND TOTAL		2628		4021		405	595																	

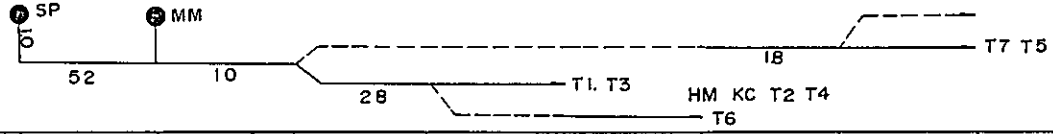
( )

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T7	SP ~ MM



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
GENERAL CIRCUIT		SW	43 (40)	9L 17 MM	5L 26 SW			°140	°157	°179	°143	°137	°179							°140	°157	°179	°140	°157	°179				SW
		SW	43	9L 17	·5L 26			△30	△34	△18	△30	△34	△18							△30	△34	△18	△30	△34	△18				SW
	T7	SW	89	9L 44	5NL45			—	—	X60	—	—	X60							—	—	X60	—	—	X60				SW
		SW SPS	89	9L 44	5NL45			X5	X6	X8	X5	X6	X8							X5	X6	X8	X5	X6	X8				SW SPS
		SW MISC						5	5	5	5	5	5							5	5	5	5	5	5				SW MISC
		TC	94	·9L 17	5L 26 SM	5NL 5.1 TC		—	X11	X27	—	X11	X27							—	X11	X27	—	X11	X27				TC
		KK	52	·9L 17	·9L 12 PL	65L 23 KK		△39	△44	△33	△39	△44	△33	△39	△44	△33	△39	△44	△33	KK									
		KK	42	9L 17	9L 12	·9L 13		°22	°27	°45	°22	°27	°45	°22	°27	°45	°22	°27	°45	KK									
		TOLL	104	9NL 44	65L 25	·5L 35		X14	X17	X27	X14	X17	X27	X14	X17	X27	X14	X17	X27	TOLL									
	T1	KK TEST		·9NL	65NL	·5NL		6	8	16	6	8	16	6	8	16	6	8	16	KK TEST									
		KK OBS						3	3	3	3	3	3	3	3	3	3	3	3	KK OBS									
		PTW	71	9L 17	65L 25	5NL 29 PTW		—	X10	X35	—	X10	X35	—	X10	X33	—	X10	X35	PTW									
		SR	91	9L 17	65L 23	·5L 51 SR		—	—	X60	—	—	X60	—	—	X60	—	—	X60	SR									
	T2	PY	44	·9L 17	·9L 12	·9L 15 PY		△23	△26	△41	△23	△26	△41	△23	△26	△41	△23	△26	△41	PY									
		PL	55	·9L 17	5L 38			△26	△34	△33	△26	△34	△33	△26	△34	△33	△26	△34	△33	PL									
		PL	97	9NL 44	65NL 53			—	—	X50	—	—	X50	—	—	X50	—	—	X50	PL									
	T3	MM MISC		9NL				1	1	1	MM MISC.																		
		MM	44	9NL 44				20	18	50	MM																		
		ASD	88	9L 17	5L 36	5L 35 ASD		—	X13	X22	—	X13	X22	—	X13	X22	—	X13	X22	ASD									
		SKV	84	·9L 17	5L 37	·5L 30 SKV		—	X11	X18	—	X11	X18	—	X11	X18	—	X11	X18	SK									
	T4	LS	51	·9L 19	9L 14	PCM 20 LS		△10	△12	△19	△10	△12	△19	△10	△12	△19	△10	△12	△19	LS									
	T5	TH	58	9L 17	5L 24 SN	9L 17 TH		△19	△22	△35	△19	△22	△35										△19	△22	△35	△19	△22	△35	TH
	T6	PKN	52	9L 16	9L 12 PL	9L 24 PKN		△27	△32	△50	△27	△32	△50	△27	△32	△50				△27	△32	△50							
		PKN	109	·9NL 42	·65L 23	65L 44 PKN		—	—	X12	—	—	X12	—	—	X12				—	—	X12							
		HM	97	9L 17	5L 37	65L 43 HM		—	—	X18	—	—	X18	—	—	X18	—	—	18	HM									
EXSECTIVE CIRCUIT	T7	SW	89	9NL 44	5NL 45 SW			X1	X3	X9	X1	X3	X9										X1	X3	X9	X1	X3	X9	SW
		SW	89	9NL 44	5NL 45 SW			5	5	16	5	5	16										5	5	16	5	5	16	SW
	T1	KK	104	·9NL 44	65L 25 PL	5L 35 KK		X1	X3	X9	X1	X3	X9	X1	X3	X9	X1	X3	X9	KK									
	T3	PL	97	9NL 44	65NL 53			X11	X23	X34	X11	X23	X34	X11	X23	X34	X11	X23	X34	PL									
						SUB TOTAL	· 4 db	162	184	224	162	184	224	22	27	45	22	27	45				140	157	179	140	157	179	
							△ 6 db	174	204	229	174	204	229	125	148	176	98	116	85	27	32	50	49	56	53	49	56	53	
							X 11 db	52	115	439	32	97	389	26	77	285	26	77	314			12	6	20	104	6	20	104	
							NL	20	22	41	19	21	40	9	11	19	9	11	19				10	10	21	10	10	21	
						GRAND TOTAL		408	525	933	387	506	882	182	263	525	155	231	463	27	32	62	205	243	357	205	243	357	

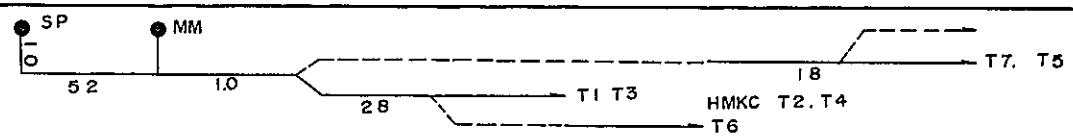
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T3	MM ~ PL



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)			'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
GENERAL CIRCUIT		PL	2.7			PL 65L 2.7			MM	159	174	215	139	174	215	159	174	215	PL												
		PL	4.0			5L 4.0				22	21	30	22	21	30	22	21	30	PL												
		PL	6.8			5NL 6.8				114	82	192	114	82	192	114	82	192	PL												
	T3	ASD	10.2	AS	P 5NL 6.2	5L 4.0				21	68	133	21	68	133	21	68	133	ASD												
		SKV	9.3	S	KV 5NL 5.3	5L 4.0				—	61	117	—	61	117	—	61	117	SKV												
		PL MISC				5NL				6	6	6	6	6	6	6	6	6	PLMISC												
		KK	6.0		KK 5L 3.5	65L 2.5				34	33	35	34	33	35	34	33	35	KK												
		KK TOLL	3.7			65L 2.3				57	57	107	57	57	107	57	57	107	KK TOLL												
		KK	10.2			5NL 6.2	5L 4.0			34	34	61	34	34	51	34	34	61													
		KK	10.2			5NL 6.2	5L 4.0			90	58	74	90	58	74	90	58	74	KK												
	T1	KK TEST				5NL	5NL			20	20	42	20	20	42	20	20	42	KK TEST												
		KK OBS								3	3	3	3	3	3	3	3	3	KK OBS												
		SR	10.6	SR	5L 5.3	65NL 5.3				162	126	237	162	126	237	162	126	237	SR												
		PTW	9.7	PTW	5NL 2.9	5L 6.8				25	66	139	25	66	139	25	66	139	PTW												
		BP	8.5	BP	65L 2.7	5L 3.3	65L 2.5			11	—	29	11		29	11	—	29	BP												
		SS	8.4	SS	5L 2.6	5L 3.3	65L 2.5			—	—	30	—	—	30	—	—	30	SS												
		PY	4.0		PY	9L 1.5	65L 2.5			48	46	44	48	46	44	48	46	44	PY												
		PY	11.1			65NL 5.8	65NL 5.3			28	10	32	28	10	32	28	10	32	PY												
	T2	BS	8.4	BS 9L 1.1	BSh 5L 2.0	65L 2.6	65L 2.7			—	—	33	—	—	33	—	—	33	BS												
		IM	10.6	IM	65NL 5.1	65L 2.8	65L 2.7			—	12	38	—	12	38	—	12	38	IM												
		LP-I	11.0	LPI	65L 2.9	65L 2.8	65NL 5.3			—	12	43	—	12	43	—	12	43	LPI												
	T4	LS	4.7		LS	PCM 2.0	65L 2.7			24	25	46	24	25	46	24	25	46	LS												
		TH	5.7		TH	65L 3.1	SW 5L 2.6			34	35	56								34	35	56	34	35	56	TH					
		TH	9.4			5L 4.9	5NL 4.5			38	27	52								38	27	52	38	27	52	TH					
	T5	DK	10.6	DK	9NL 3.3	5L 4.9	5L 2.6			—	—	26								—	—	26	—	—	26	DK					
		CHW	10.0	CHW	5L 3.8	9L 1.7	5NL 4.5			—	—	19								—	—	19	—	—	19	CHW					
		PKN	5.8		PKN	65L 4.4	PL 9L 1.4			57	86	100	57	86	100				57	86	100	PKN									
		PKN	8.2			65L 4.4	5L 3.8			16	23	46	16	23	46				16	23	46	PKN									
		CP	8.9		CP	5L 5.1	5L 3.8			146	98	146	146	98	146				146	98	146	CP									
		BN	8.9	BN	65L 2.2	PKN 65L 4.2	65L 2.5			28	11	34	28	11	34				28	11	34	BN									
		KC	8.9	KC	65L 3.4	65L 4.1	9L 1.4			—	—	21	—	—	21	—	—	21	KC												
	T6	PS	9.0	PS 9L 1.2	BN 9L 1.1	65L 4.2	65L 2.5			—	—	27	—	—	27				—	—	27	PS									
		SMP	8.9	SMP	PCM 2.0	65L 4.4	65L 2.5			—	—	12	—	—	12				—	—	12	SMP									
		ON2	9.0	ON2	9L 3.4	65L 4.2	9L 1.4			—	12	47	—	12	47				—	12	47	ON2									
		ONI	8.2	ONI	65L 2.6	65L 4.2	9L 1.4			—	17	73	—	17	73				—	17	73	ONI									
		HM	8.2		HM	65L 4.3	5L 3.9			45	55	129	45	55	129	45	55	129	HM												
		SW	4.5			SW 5NL 4.5				31	23	34	31	23	34					31	23	34	31	23	34	SW					
		SW	4.5			5NL 4.5				267	192	348	267	192	348					267	192	348	267	192	348	SW					
	T7	SW SPS	4.5			5NL 4.5				10	10	18	10	10	18					10	10	18	10	10	18	SW SPS					
		TK	8.8		TK	9NL 4.3	5NL 4.5			10	23	41	10	23	41					10	23	41	10	23	41	TK					
		SP	4.4			SP	9NL 4.4	20	18	50	SP																				
		TC	9.6		TC	5NL 5.1	5NL 4.5				26	42	74	26	42	74					26	42	74	26	42	74	TC					

(MM)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T3	MM ~ PL

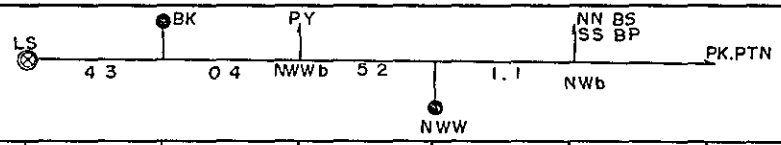


KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)			'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
					SUB TOTAL	• 4 db				216	231	322	216	231	322	216	231	322												
						Δ6 db				250	269	345	216	234	269	128	125	155	57	85	100	65	58	90	65	58	90			
						X 11 db	20	18	59	1071	1039	2271	1033	1013	2174	530	584	1308	190	161	385	351	294	578	351	294	578			
						NL				29	29	51	29	29	51	29	29	51												
					GRAND	TOTAL				1566	1568	2989	1494	1506	2836	903	969	1836	247	247	485	416	352	668	416	352	668			

(NWW)

NO (1/1)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T4	NWW ~ NWWb NWW ~ NWb

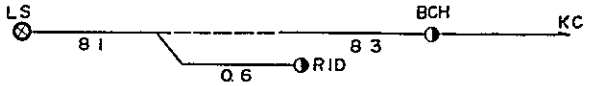


KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (db)	LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT	T4	LS	3.1	LS 9L 1.4 BK 9L 0.1 NWb 9L 1.6	•1.3	•1.02	•1.15	•1.3	•1.02	•1.15	•1.3	•1.02	•1.15	NWW										
		LS	3.1	9L 1.4 9L 0.1 •9L 1.6	Δ1.7	Δ1.9	Δ2.8	Δ1.7	Δ1.9	Δ2.8	Δ1.7	Δ1.9	Δ2.8	•										
		LS SPS	8.1	• 9NL 3.5 9NL 0.3 9NL 4.3	X 6	X 6	X 9	X 6	X 6	X 9	X 6	X 6	X 9	•										
		LS.MISC		9NL 9NL 9NL	5	5	5	5	5	5	5	5	5	•										
	T2	PY	3.9	PY 9L 2.3 9L 1.6							X 4.3	Δ 3.9	Δ 4.1	•										
		PY	10.0	PY 9NL 5.7 •9NL 4.3							X 3.6	X 1.6	X 2.7	•										
		IM	9.0	IM 5NL 5.1 9L 2.3 9L 1.6							—	—	X 2.6	•										
		LP-I	6.8	LP-I 6.5L 2.9 9L 2.3 •9L 1.6							X 1.3	X 1.8	X 3.0	•										
	T6	PKN	5.9	PKN PCM 2.0 PY 9L 2.3 NWb 9L 1.6							Δ 2.7	Δ 3.4	Δ 3.7	•										
		KC	5.9	KC • 2.0 •9L 2.3 9L 1.6							X 1.0	—	X 1.1	•										
	T1	KK	5.4	KK 9L 1.7 PY 9L 2.1 NWb 9L 1.6							Δ 5.7	Δ 5.1	Δ 5.2	•										
		KK	7.1	6.5L 3.2 9L 2.3 9L 1.6							X 3.6	X 2.6	X 2.4	•										
		KK TOLL	5.4+0.7	9L 1.7 9L 2.1 •9L 1.6							• 3.3	• 3.3	• 4.7	•										
			7.1	6.5L 3.2 9L 2.3 9L 1.6							X 2.0	X 2.0	X 2.9	•										
		SR	9.0	SR 5NL 3.6 KK 9L 1.7 9L 2.1 •9L 1.6							X 4.2	X 3.3	X 4.8	•										
		PTW	8.2	PTW 5L 4.3 9L 2.3 9L 1.6							—	X 2.3	X 4.9	•										
		KK TEST		6.5NL 9NL 9NL							1.0	1.0	1.6	•										
		KK OBS		• • •							3	3	3	•										
	T3	PL	5.2	PL 9L 1.5 PY 9L 2.1 NWb 9L 1.6							Δ 3.5	Δ 4.0	Δ 5.1	•										
		PL	9.7	PL 6.5NL 5.8 9L 2.3 9L 1.6							—	—	X 2.0	•										
		ASD	9.8	ASD 6.5NL 5.9 •9L 2.3 9L 1.6							—	X 1.2	X 2.9	•	— X 2.1	X 5.0	— X 2.1	X 5.0	NWb PK PTN 9L 0.3 6.5L 3.0 9L 4.7	9.3	PTN		
		SKV	9.8	SKV 5L 3.0 PL 6.5L 2.6 PY 9L 2.1 NWb 9L 1.6							—	X 1.0	X 1.3	•	— X 2.1	X 5.0	NN		NWW NN 9L 1.5		NN		
	T7	SW	5.8	SW 9L 2.1 9L 2.1 •9L 1.6							Δ 3.8	Δ 3.8	Δ 4.4	•	— —	X 3.0	— —	X 3.0	NWb PK PTN 9L 0.3 6.5L 3.0 9L 4.7	10.8	PTN		
	T5	TH	5.9	TH PCM 2.0 PY 9L 2.3 9L 1.6							Δ 2.6	Δ 2.6	Δ 3.7	•	— —	X 3.0	BS		NWW BS 9L 2.8		BS		
														NWW	— X 3.9	X 5.6	— X 3.9	X 5.6	NWb PK 9NL 0.9 6.5NL 6.5	7.4	PK		
														•	— 1	1	— 1	1	9NL 6.5NL		PKTKE	T4	
														•	— X 2.3	X 4.7	— X 2.3	X 4.7	9L 0.5 6.5L 3.0 PK 9L 4.7 PTN	8.2	PTN		
														•	— X 1.4	X 4.4	— X 1.4	X 4.4	NWW NWb PK 9L 0.3 6.5L 3.2		PK		
														•	— X 1.4	X 4.4	BS		BS 9L 2.8 BS	6.3	BS		
														•	— X 3.3	X 5.8	— X 3.3	X 5.8	PK 9L 0.7 6.5L 3.2		PK		
														•	— X 3.3	X 5.8	NN		NN 9NL 3.4	7.3	NN	T2	
														•	X 4.7	X 3.7	X 7.1	BS	NN 9NL 3.4 9NL 4.5 BS	7.9	BS		
														•	X 5.6	X 5.9	X 9.8	NN	9NL 3.4	3.4	NN		
														•	1	1	1	NN	9NL	10.5	NN		
														•	X 2.6	X 3.1	X 6.2	BP SS	NN 9NL 6.5 9NL 4.5 SS	11.0	BP SS	T1	
EXECTIVE CIRCUIT	T1	KK	7.1	KK 6.5L 3.2 PY 9L 2.3 NWb 9L 1.6							X 3	X 5	X 10	NWW										
		SR	10.1	SR 5L 6.4 9L 2.1 •9L 1.6							X 3	X 5	X 10	•										
	T3	PL	9.7	PL 6.5NL 5.8 PY 9L 2.3 NWb 9L 1.6							X 2	X 3	X 5	•										
	T7	SW	7.7	SW 6.5L 3.8 9L 2.3 9L 1.6							X 1	X 3	X 9	•										
					SUB TOTOL	• 4 db		1.13	1.02	1.15	1.13	1.02	1.15	1.46	1.35	1.62								
						Δ 6 db		17	19	28	17	19	28	2.43	2.42	2.90								
						X 11 db		6	6	9	6	6	9	1.72	1.80	3.49	129	325	7.16	130	2.85			
						NL		5	5	5	5	5	5	18	18	24	1	2	2	1	1			
					GRAND TOTAL			1.41	1.32	1.57	1.41	1.32	1.57	5.79	5.75	8.25	130	321	7.20	131	2.86			

NO78

(RID)

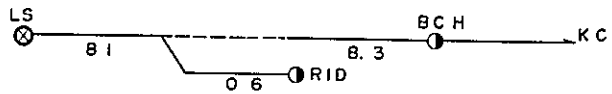
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T4	LS ~RID ~ 3CH



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d·b)	LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT		LS	27	LS 9L 27	—	•116	•155	—	•115	•155	RID													
	T4	LS	27	9L 27	—	Δ16	Δ17	—	Δ16	Δ17	•													
		LS SPS	71	9NL 71	X2	X5	X8	X2	X5	X8	•													
	T2	PY	30 (5.9)	PY 9L 34 (8.5) LS 9L 25	▽83	Δ39	Δ30	▽83	Δ39	Δ30	•													
		SS	8.8	BS 9L 11 BSD 65 L 20 9L 32 9L 25	—	—	X14	—	—	X14	•													
		IM	8.7	IM 5 L 30 9L 32 9L 25	—	—	X26	—	—	X26	•													
		LP2	8.6	LP2 5L 15 LPI 9 L 1.4 9L 32 9L 25	—	—	X23	—	—	X23	•													
		LPI	8.6	LPI 65L 2 9 9L 32 9L 25	—	—	X22	—	—	X22	•													
	T6	PKN	4.7	PKN PCM 2.0 9L 2.7	—	Δ41	Δ62	—	Δ41	Δ62	•													
		KC	9.1	KC PCM PY • 2.0 9NL 7.1	—	X11	X31	—	X11	X31	•													
		HM	7.2	HM 9 L 2.5 PL • 2.0 9L 2.7	—	—	X25	—	—	X25	•													
		ONI	8.7	ONI 5 L 4.0 PKN 2.0 9L 2.7	—	—	X10	—	—	X10	•													
	T1	KK	4.7	KK PCM 2.0 9L 2.7	—	Δ41	Δ39	—	Δ41	Δ39	•													
		KK	14.0 7.4	KK 9L 1.7 PY (5) 9L 3.2 9L 2.5	•9	•24	•42	•9	•24	•42	•													
		TOLL	10.6	KK 9NL 4.7 PY 9L 3.4 9L 2.5	X7	X15	X26	X7	X15	X26	•	RID												
		SP	10.3	BP 65NL 5.6 KK PCM 2.0 9L 2.7	—	—	X11	—	—	X11	•													
		SS	9.1	SS 5NL 4.4 • 2.0 9L 2.7	—	—	X16	—	—	X16	•													
		PTW	9.8	PTW 5NL 5.1 • 2.0 9L 2.7	—	—	X29	—	—	X29	•													
	T3	PL	4.7	PL PCM 2.0 9L 2.7	—	Δ20	Δ37	—	Δ20	Δ37	•													
		ASD	7.7	ASD 65L 3.0 PY • 2.0 9L 2.7	—	—	X10	—	—	X10	•													
		SKY	7.9	SKV 5 L 3.0 PL • 2.0 9L 2.7	—	—	X11	—	—	X11	•													
	T7	SW	4.7	SW • 2.0 9L 2.7	—	Δ22	Δ35	—	Δ22	Δ35	•													
	T5	TH	4.7	TH • 2.0 9L 2.7	—	Δ21	Δ38	—	Δ21	Δ38	•													
	T1	KK TEST		KK 9NL PY 9NL •9NL	2	8	14	2	8	14	•													
		KK OBS		• 9NL PY 9NL 9NL	—	3	3	—	3	3	•													
	T2	PYALSND		PY 9NL 9NL	1	—	—	1	—	—	•													
	T4	LSMISC		LS 9NL	—	6	6	—	6	6	•													
EXSECTIVE CIRCUIT	T1	KK	10.6	KK 9NL 4.7 PY 9L 3.4 LS 9L 2.5	—	X2	X9	—	X2	X9	•													
	T3	PL	8.5	65 L 2.8 •9L 3.2 9L 2.5	—	X2	X9	—	X2	X9	•													
	T7	SW	9.7	65 L 3.8 9L 3.4 9L 2.5	—	X2	X9	—	X2	X9	•													
		SW		65NL 9NL 9NL	2	4	6	2	4	6	•													
				SUB TOTAL: • 4 db CCT	9	140	197	9	140	197														
				SUB TOTAL: Δ 6 db	83	200	268	83	200	268														
				SUB TOTAL: X 11 db	9	37	289	9	37	289														
				SUB TOTAL: N L	5	21	29	5	21	29														
				GRAND TOTAL	106	398	783	106	398	783														

(B C H)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T4	L S ~ RID ~ B C H



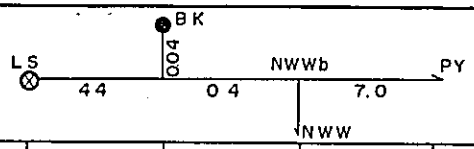
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d b)	LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT	T4	LS	2 0	LS PCM 2 0	—	°141	°170				—	°141	°176											
		LS	2 0	2 0	—	Δ 16	Δ 25				—	Δ 16	Δ 25	BCH										
		LS SPS	4 9	'80 (9L 4.9)	—	X 5	X 8				—	X 5	X 8	2			LS SPS	'76	PCM 2 0 PY 9L 3 6 LS	5 6	IS SPS		
														▽42 ▲46	432	Δ 31	PY		PCM 2 0 PY	2 0	PY		
														—	—	10	BS		〃 2 0 PY 65NL 4 6 BS 9NL 2.3 BS	8 9	BS	T2	
														BCH										
														—	X10	X30	IM		〃 2 0 · 5NL 5 1 IM	7 1	IM		
														—	—	X21	LP2		9NL 6 4 9L 4 3 LP2	10 7	LP2		
	T6	PKN	2 0	PKN PCM LS PCM 2 0	—	Δ43	Δ58				—	Δ43	Δ58	—	—	X11	LPI		9NL 6 4 9L 1 5 LP2 9 L 1 6 LPI	9 5	LPI		
														—	X11	X30	KC		9NL 6 4 PL	6 4	KC		
														—	—	X27	HM		9NL 6 4 65L 3 6 HM	10 0	HM	T6	
		KK	2 0	KK PCM — LS PCM 2 0	—	Δ43	Δ39				—	Δ43	Δ39	—	—	X10	ONI		9 L 2 3 9L 3 2 65L 3 0 PKN 5L 4 0 ONI (1 0)	12 5	ONI		
	T1	KK TOL	9 6	'80 KK (9L 1 7) PY (9L 3 2) LS 9L 4 7	—	X16	X25				—	X16	X25	°9	°25	°40	KK TOLL		PCM 2 0 PY 9L 1 9 KK	3 9	KK TOLL	T1	
		PTW	10 1	PTW 5NL 3 2 KK PCM 2 0 LS 9L 4 9	—	—	X21				—	—	X21	7	—	—		'76	PCM 2 0 9L 1 9	3 9			
		SS	10 3	SS 65NL 3 4 PCM 2 0 9L 4 9	—	—	X15				—	—	X15											
	T3	PL	2 0	PL PCM — LS PCM 2 0	—	Δ21	Δ35					Δ21	Δ35											
		ASD	7 9	ASD 65NL 5 9 PY 〃 — 〃 2 0	—	—	X12				—	—	X12											
		SKY	7 3	SKY 5NL 5 3 PL 〃 — 〃 2 0	—	—	X12				—	—	X12	BCH										
	T7	SW	2 0	SW PCM — PCM 2 0	—	Δ23	Δ33				—	Δ23	Δ33											
	T5	TH	2 0	TH PCM — PCM 2 0	—	Δ22	Δ36				—	Δ23	Δ36											
	T1	KK TEST		'80 KK (9NL) PY (9NL) LS (9NL)	—	8	14				—	8	14	2	—	—	KK TEST	'76	9NL PY 9NL KK		KK TEST		
		KK OBS		9NL ·9NL 9NL	—	3	3				—	3	3											
	T4	LS MISC		LS 9NL	—	6	6				—	6	6											
EXSECTIVE CIRCUIT	T1	KK	9.6	KK 9NL 1 7 PY ·9L 3 2 LS ·9L 4 7	—	X3	X9				—	X3	X9	1	—	—	PY ALSND		·9NL KC ·9 NL PY		PYALSND	T2	
	T3	PL	10 7	PL 65L 2 8 ·9L 3 2 9L 4 7	—	X3	X9				—	X3	X9											
	T7	SW	10 0	SW 9L 2 1 9L 3 2 9L 4 7	—	X3	X9				—	X3	X9											

		'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
SUB TOTAL	4 db	121	170		141	170		9	25	40			
	6 db	168	236		168	236		▽42 ▲46	32	41			
	11 db	30	120		30	120		9	21	145			
	N L	17	23		17	23		3					
GRAND TOTAL		356	549		356	549		109	78	216			

(BK)

NO (1/1)

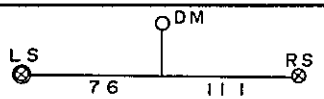
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T4	LS ~ BK ~ PY NWWb



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		LS	3.6	LS 9NL 3.6	•92	•132	•149	BK											
		LS	3.6	9NL 3.6	Δ21	Δ20	Δ31	•											
	T4	LS SPS	3.6	9NL 3.6	X6	X5	X7	•											
		LS.TKE		9NL	1	1	1	•											
		LS MSC		9NL	5	5	5	•											
								BK	Δ30	Δ32	Δ30	Δ30	Δ32	Δ30	PY				
								•	X67	X20	X20	X67	X20	X20	PY				
								•	X31	X11	X34	X31	X11	X34	BS				
								•	—	—	X26	—	—	X26	IM				
								•	X22	X22	X38	X22	X22	X38	LPI				
								•	1	1	1	1	1	1	PY TKE				
								•	Δ50	Δ33	Δ49	Δ50	Δ33	Δ49	PKN				
								•	X20	—	—	X20	—	—	CP				
								•	Δ40	Δ25	Δ35	Δ40	Δ25	Δ35	SW				
								•	X51	—	X36	X51	—	X36	S W				
								•	Δ27	Δ19	Δ29	Δ27	Δ19	Δ29	TH				
								•	Δ42	Δ33	Δ38	Δ42	Δ33	Δ38	KK				
								•	X60	—	—	X60	—	—	K K				
								•	•33	•23	•35	•33	•23	•35	KK TOLL				
								•	X20	X15	X22	X20	X15	X22					
								•	X30	—	—	X30	—	—	S R				
								•	X11	—	X10	X11	—	X10	B P				
								•	X11	—	X33	X11	—	X33	S S				
								•	X11	X28	X47	X11	X28	X47	P TW				
								•	10	8	12	10	8	12	K K TEST				
								•	3	3	3	3	3	3	K K OBS				
								•	Δ37	Δ29	Δ47	Δ37	Δ29	Δ47	PL				
								•	X40	X20	X34	X40	X20	X34	P L				
								•	X10	—	X14	X10	—	X14	H M				
								•	X11	X17	X25	X11	X17	X25	A S D				
								•	—	X16	X23	—	X16	X23	S K V				
								•	X13	X25	X35	X13	X25	X35	K K				
								•	2	3	5	2	3	5	K K				
								•	3	5	10	3	5	10	S R				
								•	X2	X3	X5	X2	X3	X5	P L				
								•	X1	X3	X9	X1	X3	X9	S W				
								•	12	24	37	12	24	37	S W				
		LS	3 1	LS 9L 1 4 BK 9L 0 1 NWb 9L 1.6	•113	•102	•115	•113	•102	•115	NWW								
	T4	LS	3 1	LS 9L 1 4 BK 9L 0 1 9L 1 6	Δ17	Δ19	Δ23	Δ17	Δ19	Δ23	•								
		LS SPS	8 1	9NL 3 5 9NL 0 3 9NL 4 3	X6	X6	X9	X6	X6	X9	•								
		LS MSC		9NL 9NL 9NL	5	5	5	5	5	5	•								
				SUB TOTAL • 4 db	205	234	264	146	125	150	33	23	35						
				SUB TOTAL Δ 6 db	38	39	59	243	190	256	226	171	228						
				SUB TOTAL X 11 db	12	11	16	417	186	420	411	180	411						
				SUB TOTAL NL	11	11	11	36	49	73	31	44	68						
				GRAND TOTAL	266	295	350	342	550	899	701	418	742						

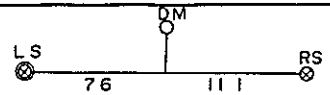
TRANSMISSION SUSTEM & LOSS (d·b)	LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
9L 2 6 PY	2.6	PY		GENERAL CIRCUIT
9NL 6 1	6.1	PY		
9NL 6 1 65L 2 2 BS 9 L 1.1 BS	9 4	BS	T2	
9NL 6 1 65NL 4.0 IM	10.1	IM		
9NL 6 1 65L 3 1 LPI	9.2	LPI		
9NL PY		PY TKE		
9L 2 4 PCM 2.0 PKN	4 4	PKN	T6	
9L 2 4 65L 2.6 ASD 65L 3.9 CP	8 9	CP		
9L 2 4 9L 2.1 SW	4 5	SW	T7	
9L 2 6 65NL 8 3	10 9	SW		
9L 2 6 PCM 2.0 TH	4 6	TH	T5	
9L 2 4 PY 65L 3.2 KK	5 6	KK		
9L 2 6 65NL 6 7	9 3	KK		
9L 2 4 9L 1 7	4 1	KK TOLL		
9L 2 6 65NL 6 7	9 3			
9L 2 4 5L 6 4 SR	8 8	SR	T1	
9L 2.4 PK 5L 4 8 SS 65L 2.1 BP	9 9	BP		
9L 2 4 5L 5.0 65NL 3.4 SS	10.8	SS		
9L 2 6 5NL 7.7 PKN	10.3	PTW		
9NL 65NL KK		KKTEST		
• •		KK OBS		
9L 2.4 PY 65L 2 8 PL	5 2	PL	T3	
9L 2 6 65NL 5 8	8 4	PL		
9L 2.4 PY PCM 2.0 PKN 65L 3 4 HM	7 8	HM		
9L 2.4 PY 65NL 5.9 ASD	8.3	ASD		
9L 2 4 65L 2.8 5NL 5.3 SKV	10.5	SKV		
9L 2 4 65NL KK	9 3	KK	T1	EXSECTIVE CIRCUIT
9NL 65NL		KK		
9NL 5NL		S R		
9L 2 6 65NL 5 8 PL	8 4	P L	T3	
9L 2 6 65NL 8 3 SW	10 9	S W	T7	
9NL 65NL		S W		

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T4	R S ～ DM



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T4	LS	20	LS PCM 20	—	• 64	• 136	—	• 64	• 136	RS																	
		LS	20	• 20	—	Δ 16	Δ 27	—	Δ 16	Δ 27	•																	
	T2	LP-1	10.0	LP-1 9L 1.6 PY 9L 3.2 9L 5.2	—	—	X 10	—	—	X 10	•																	
		PY	20	PY PCM 2.0	▽105	Δ 32	Δ 55	▽105	Δ 32	Δ 55	•																	
	T6	PKN	40	PKN PCM 2.0 LS • 2.0	—	Δ 27	Δ 52	—	Δ 27	Δ 52	•																	
	T1	PTW	9.1	PTW 5NL 5.1 KK 9L 1.9 PY • 2.0	—	—	X 16	—	—	X 16	•																	
		KK	5.4	KK 6.5NL 3.4 PY • 2.0	—	Δ 57	Δ 59	—	Δ 57	Δ 59	•																	
		KK	6.7	KK 9NL 4.7 PY PCM 2.0	X 7	X 11	X 20	X 7	X 11	X 20	•																	
		TOLL	3.9	KK 9L 1.9 PY PCM 2.0	• 9	• 17	• 33	• 9	• 17	• 33	•																	
	T3	PL	5.0	PL 6.5L 3.0 PY • 2.0	—	Δ 27	Δ 56	—	Δ 27	Δ 56	•																	
	T7	SW	4.3	SW 9L 2.0 PY • 2.0	—	Δ 19	Δ 36	—	Δ 19	Δ 36	•																	
	T5	TH	4.0	TH PCM 2.0 LS • 2.0	—	Δ 17	Δ 36	—	Δ 17	Δ 34	•																	
		LS.SPS	9.1	LS 9NL 9.1	X 2	X 4	X 6	X 2	X 4	X 6	•																	
	T4	DM	9.1	9NL 9.1			DM	—	34	71	•																	
		SDM	9.5	SDM 6.5L 4.3 9L 5.2	—	X 21	X 39	—	X 21	X 39	•																	
	T1	KK.TEST		9NL	2	4	10	2	4	10	•																	
		KK OBS		9NL	—	3	3	—	3	3	•																	
	T2	PY LISND		9NL	1	—	—	1	—	—	•		RS															
	T4	LSMISC		9NL	—	5	5	—	5	5	•																	
		DM TKE		9NL			DM	—	1	1	•																	
EXSECTIVE CIRCUIT	T1	KK	10.1	KK 9L 1.7 PY 9L 3.2 LS 9L 5.2	—	X 2	X 9	—	X 2	X 9	RS																	
	T3	PL	9.9	PL 9L 1.6 9L 3.2 9L 5.2	—	X 2	X 9	—	X 2	X 9	•																	
	T7	SW	10.5	SW 9L 2.1 PY 9L 3.2 LS 9L 5.2	—	X 2	X 9	—	X 2	X 9	•																	
		SW		9NL 9NL 9NL	10	30	31	10	30	31	•																	
				SUB TOTAL: • 4 db	• 9	• 81	• 169	• 9	• 81	• 169																		
				Δ 6 db		Δ 175	Δ 317		Δ 175	Δ 317																		
				X 11 db	X 9	X 36	X 91	X 9	X 70	X 162																		
				NL	3	12	18	3	13	19																		
				GRAND TOTAL	▽104 21	304	595	▽104 21	339	667																		

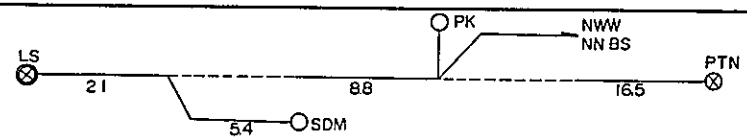
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T4	DM ~ LS



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)					'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		SDM	105				SDM 65L 4.3	LS 9NL 6.2	SDM —	X 54	X 71	DMI																				
	T4	LS	25					LS 9L 2.5	•163	•182	•244	〃																				
		LS	25					9L 2.5	△14	△19	△27	〃																				
	T2	BS	86	BS 9L 1.1	BS 9L 2.0	PY 9L 3.2		·9L 2.3	—	—	X 13	〃																				
		IM	85		IM 5L 3.0		9L 3.2	9L 2.3	—	—	X 10	〃																				
		LP-I	84		LP-I 6.5L 2.9		9L 3.2	9L 2.3	—	—	X 15	〃																				
		PY	20					PH PCM 2.0	△53	△54	△46	〃																				
	T6	KC	10.2		KC PCM 2.0	PY PCM 2.0		LS 9NL 6.2	—	—	X 10	〃																				
		PKN	4.0			PKN PCM 2.0		PY PCM 2.0	△38	△45	△48	〃																				
		PTW	9.6		PTW 5NL 5.1		KK PCM 2.0	LS 9L 2.5	—	X 16	X 42	〃																				
	T1	SS	8.9		·5NL 4.4		〃 2.0	9L 2.5	—	—	X 15	〃																				
		KK	5.4			KK 65L 3.4		PY PCM 2.0	△51	△49	△55	〃																				
		KK	8.7		KK 65NL 6.7		PY PCM 2.0		X14	X17	X 25	〃																				
		TOLL	3.9			KK 9L 1.9		PY PCM 2.0	•22	•27	•40	〃																				
	T4	PL	9.7		PL 9NL 4.0		PY 9L 3.4	LS 9L 2.3	—	—	X 28	〃																				
	T6	HM	11.0		HM 9NL 6.6		PY PCM 2.0	9L 2.5	—	—	X 21	〃																				
		ASD	7.5		ASD 6.5L 3.0		PL PCM 2.0	9L 2.5	—	X 10	X 25	〃																				
	T3	SKV	7.7		SKV 5L 3.2		PL 〃 2.0	9L 2.5	—	—	X 25	〃																				
		PL	5.0			PL 65L 3.0		PY PCM 4.0	△30	△36	△22	〃																				
	T7	SW	5.5			SW 9L 2.3		PY 〃 2.0	△29	△30	△41	〃																				
	T5	TH	4.0			TH PCM 2.0		PY 〃 2.0	△24	△25	△41	〃																				
	T4	LS SPS	6.2					LS 9NL 6.2	X 5	X 6	X 8	〃																				
	T1	KK TCST			KK 65NL		PY ·9NL	9NL	6	8	14	〃																				
		KK OBS			〃		〃	〃	3	3	3	〃																				
	T4	LS MISC			〃			〃	6	6	6	〃																				
EXSECTIVE CIRCUIT	T1	KK	8.7		KK 65L 3.2		PY 9L 3.2	LS 9L 2.3	X25	X50	X63	DM																				
	T2	PY	9.6			PY 9L 3.4		9NL 6.2	X 2	X 3	X 5	〃																				
	T3	PL	8.3		PL 65L 2.5		PY 9L 3.2	9L 2.3	X 2	X 3	X 5	〃																				
		MM	8.2	MM 9L 1.4	PL 9L 1.3		9L 3.2	9L 2.3	X 2	X 4	X 6	〃																				
	T1	SR			SR 5NL		PY 9NL	9NL	3	5	10	〃																				
	T7	SW	7.6		SW 9L 2.1		PY 9L 3.2	LS 9L 2.3	X 3	X 5	X 10	〃																				
		SW			·9NL		9NL	9NL	3	5	10	〃																				
								• 4 db	•185	•209	•284																					
								△ 6 db	239	261	280																					
								X 11 db	X19	X92	X162																					
								NL	15	17	23																					
							GRAND	TOTAL	458	592	895																					

(PTN)

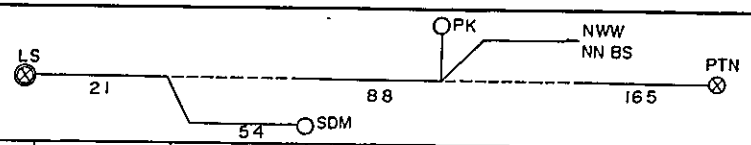
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T4	PTN ~ PK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T4	LS	2.0	LS PCM 2.0	—•	82	•126	—•	82	•126	—•	82	•126				—	•82	•126	PTN								
	T4	LS	2.0	2.0	—Δ	17	22	—Δ	17	Δ 22	—Δ	17	Δ 22				—	Δ17	Δ22									
	T2	BS	10	BS ·9L 2.8 NWW 9L 0.3 NWb 65L 0.3 PK 9L 4.7										PK			—	—	X30	BS									
	T2	LP-1	8.3	LP-1 65L 2.9 PY 9L 3.4 LS PCM 2.0	—	—	X 10	—	—	X 10	—	—	X 10							—	—	X10						
	T6	NN	9.3	NN 9L 1.3 NWW 9L 0.3 NWb 65L 3.0 PK ·9L 4.7										PK			—	X21	X50	NN									
	T6	PY	2.0	PY PCM LS PCM 2.0	▽100	Δ28	Δ42	▽100	Δ28	Δ42	▽100	Δ28	Δ42				▽100	Δ28	Δ42									
	T6	PKN	2.0	PKN — 2.0	—	Δ18	Δ32	—	Δ18	Δ32	—	Δ18	Δ32				—	Δ18	Δ32									
	T1	PTW	7.1	PTW ·5NL 5.1 PY — 2.0	—	—	X13	—	—	X13	—	—	X13				—	—	X13									
	T1	SS	8.3	SS 5NL 4.4 KK 9L PY 2.0	—	—	X26	—	—	X26	—	—	X26				—	—	X26									
	T1	KK	3.9	KK ·9L 1.9 PY — 2.0	• 9	• 17	• 33	• 9	• 17	• 33	• 9	• 17	• 33				• 9	• 17	• 33									
	T1	TOLL	8.7	KK 65NL 6.7 PY PCM — 2.0	X 7	X 11	X 20	X 7	X 11	X 20	X 7	X 11	X 20				X 7	X 11	X 20									
	T1	KK	3.9	KK 9L 1.9 2.0	—Δ	31	Δ52	—Δ	31	Δ52	—Δ	31	Δ52				—Δ	31	Δ52									
	T3	PL	2.0	PL — 2.0	—Δ	21	Δ43	—Δ	21	Δ43	—Δ	21	Δ43				—Δ	21	Δ43									
	T7	SW	2.0	SW — 2.0	—Δ	17	Δ31	—Δ	17	Δ31	—Δ	17	Δ31				—Δ	17	Δ31									
	T5	TH	2.0	TH — 2.0	—Δ	14	Δ26	—Δ	14	Δ26	—Δ	14	Δ26				—Δ	14	Δ26									
	T4	LSSPS	7.8	·9L 7.8	X 2	X 4	X 6	X 2	X 4	X 6	X 2	X 4	X 6				X 2	X 4	X 6									
	T1	KKTEST		KK 65NL PY 9NL ·9NL	2	4	10	2	4	10	2	4	10				2	4	10									
	T1	KKOBS		KK 65NL PY	—	3	3	—	3	3	—	3	3				—	3	3									
	T2	PYMISC		PY ·9NL	1	—	—	1	—	—	1	—	—				1	—	—									
	T2	PYTKE		PY 9NL	—	1	1	—	1	1	—	1	1				—	1	1									
	T4	LSMISC		·9NL	—	5	5	—	5	5	—	5	5				—	5	5									
	T4	PKTKE		PK 9NL										PK			—	1	1									
	T4	PK	4.9	PK 9L 4.9														—	X30									
		NWW	8.2	NWW 9L 0.5 NWWb 65L 3.0 PK ·9L 4.7														—	X23	X47								
EXSELTIVE CIRCUIT		KK	(2.0)(1.0)	KK ·9L 1.7 PY (1.0) 9L 3.2 LS ·9L 7.8	X 10	X 22	X 34				X 10	X 22	X 34				NWW X 10	X 22	X 34									
		PL	(2.5)(1.5)	PL ·9L 1.5 PY 9L 3.2 ·9L 7.8	—X	2	X 9				X	X 2	X 9				—	X 2	X 9									
		SW	(3.1)(1.0)	SW ·9L 2.1 PY ·9L 3.2 ·9L 7.8	—X	2	X 9					X 2	X 9				—	X 2	X 9									
		SUB TOTAL		• 4db	9	99	159	9	99	159	9	99	159				9	99	159									
				Δ 6db	100	146	248	100	146	248	100	146	248				100	146	248									
				X 11db	19	41	127	19	41	127	19	41	127		44	127	19	85	284									
				NL	3	13	19	3	13	19	3	13	19		1	1	3	14	20									
		GRAND TOTAL			131	299	553	131	299	553	131	299	553		45	129	131	344	711									

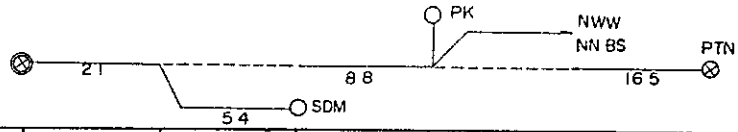
(PTN)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T4	PTN ~ PK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d·b)	LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT	T4	LS	2.0	LS PCM 2.0	—	• 89	• 103	—	• 89	• 103	—	• 89	• 103	PK										GENERAL CIRCUIT
		LS	3.1	9L 3.1	—	Δ 22	Δ 23	—	Δ 22	Δ 23	—	Δ 22	Δ 23	〃										
	T2	LP-1	9.1	LP-1 PY LS 65L 2.9 9L 3.2 9L 2.9	—	—	X 13	—	—	X 13	—	—	X 13	PK —	X 14	X 44	— BS			65L 3.2 NWD 9L 0.3 NWW 9L 2.8 BS	6.3	BS		
		PY	2.0	PY PCM — PCM 2.0	—	Δ 30	Δ 43	—	Δ 30	Δ 43	—	Δ 30	Δ 43	PK —	X 33	X 58	— NN			65L 3.2 NW 9L 0.3 NWW 9NL 3.4 NN	7.3	NN		
	T6	PKN	2.0	PKN 〃 — PCM 2.0	—	Δ 26	Δ 37	—	Δ 26	Δ 37	—	Δ 27	Δ 37	PK										
		PTW	7.1	PTW PY 5NL 5 PCM — PCM 2.0	—	X 10	X 16	—	X 10	X 16	—	X 10	X 16	〃										
	T1	SS	6.4	SS KK 5NL 4.4 〃 — 〃 2.0	—	—	X 34	—	—	X 34	—	—	X 34	〃										
		KK	2.0	KK 〃 — PCM 2.0	—	• 25	• 38	—	• 25	• 38	—	• 25	• 38	〃										
		TOLL	7.8	KK 9L 1.7 PY 9L 3.2 9L 2.9	—	X 16	X 23	—	X 16	X 23	—	X 16	X 23	〃										
		KK	2.0	PCM — PCM 2.0	—	Δ 48	Δ 59	—	Δ 48	Δ 59	—	Δ 48	Δ 59	〃										
	T3	ASD	8.1	PSD PY 65L 3.0 〃 2.0 9L 3.1	—	—	X 10	—	—	X 10	—	—	X 10	〃										
		PL	2.0	PL 〃 — PCM 2.0	—	Δ 31	Δ 41	—	Δ 31	Δ 41	—	Δ 31	Δ 41	〃										
	T4	SW	2.0	SW 〃 — 〃 2.0	—	Δ 25	Δ 35	—	Δ 25	Δ 35	—	Δ 25	Δ 35	〃										
	T5	TH	2.0	TH 〃 — 〃 2.0	—	Δ 20	Δ 30	—	Δ 20	Δ 30	—	Δ 20	Δ 30	〃										
	T4	LS SPS	8.3	LS · 9NL 8.3	—	X 5	X 7	—	X 5	X 7	—	X 5	X 7	PK	— X 39	X 56	— NWW			65NL 6.5 NWWb 9NL 0.9 NWW	7.4	NWW		
															— —	X 30	— —	X 30 PTN		9L 4.9 PTN	4.9	PTN	T4	
	T1	KKTEST		KK 9NL 9NL	—	8	12	—	8	12	—	8	12	PK										
		KKOBS		KK 〃 9NL	—	3	3	—	3	3	—	3	3	〃										
	T4	LSMISC		LS 9NL	—	5	5	—	5	5	—	5	5	PK	— 1	1	— NWW TKE			·65NL NWWb 9NL NWW		NWW	T4	
EXSELTIVE CIRCUIT		KK	7.8	KK 9L 1.7 PY 9L 3.2 LS · 9L 2.9	—	X 3	X 9				—	X 3	X 9	PK	— 1	1	— 1	1		9NL PTN		PTN TKE	T4	
		PL	7.6	PL 9L 1.5 9L 3.2 9L 2.9	—	X 3	X 9				—	X 3	X 9	PK			PTN TKE							
		SW	8.2	SW 9L 2.1 9L 3.2 9L 2.9	—	X 7	X 15				—	X 7	X 15	〃										
		SW		9NL · 9NL	—	4	6				—	4	6	〃										
				SUB TOTAL	• 4db	114	141	114	141	114	141													
					Δ 6db	202	268	202	268	202	268													
					X 11db	44	136	31	103	44	136		86	188		30							
					NL	20	26	16	20	20	26		2	2		1	1							
				GRAND TOTAL		380	571	363	532	380	571		88	190		1	31							

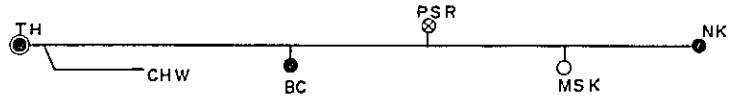
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T4	SDM ~ LS



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T4	LS	4 3			LS	65L 4 3	—	•116	•156	—	•116	•156	SDM																	
		LS	4 3				65L 4 3	—	△19	△25	—	△19	△25	〃																	
	T2	BS	10 4	BS 9L 1 1	BSb 65L 2.0	PY 9L 3 2	65L 4 1	—	—	X 10	—	—	X 10	〃																	
		LP-1	10 3		LP1 65L 2 9	9L 3 2	65L 4 2	—	—	X 12	—	—	X 12	〃																	
	T6	PY	4 5			PY PCM 2 0	9L 2 5	—	△50	△45	—	△50	△45	〃																	
		PKN	4 5			PKN 〃 2 0	9L 2 5	—	△42	△52	—	△42	△52	〃																	
	T1	PTW	9.5		PTW 5L 3.2	PY PCM 2 0	65L 4.3	—	X 15	X 21	—	X 15	X 21	〃																	
		SS	10 7		SS • 5NL 4.4	KK 〃 2 0	65L 4 3	—	—	X 12	—	—	X 12	〃																	
		KK	7.2(4 0)		KK 9L 1.7	PY 9L 3 2	9L 2 3	—	• 25	• 33	—	• 25	• 33	〃																	
		TOLL	10 5		65L 3 2	9L 3 2	65L 4 1	—	X 16	X 20	—	X 16	X 20	〃																	
		KK	4 5			PCM 2 0	9L 2 5	—	△45	△45	—	△45	△45	〃																	
	T3	ASD	9.3		ASD 65L 3.0	PY 〃 2 0	65L 4 3	—	—	X 12	—	—	X 12	〃																	
		SKV	9 5		SKV 5L 3 2	PL 〃 2 0	65L 4 3	—	—	X 10	—	—	X 10	〃																	
		PL	8.2			〃 2 0	65NL 6.2	—	—	X 22	—	—	X 22	〃																	
		PL	4 5			PCM 2 0	9L 2 5	—	△41	△20	—	△41	△20	〃																	
	T7	SW	4 5			SW 〃 2 0	9L 2 5	—	△28	△34	—	△28	△34	〃																	
	T5	TH	8 2			TH 〃 2 0	65NL 6.2	—	—	X 10	—	—	X 10	〃																	
		TH	4 5			PCM 2 0	9L 2 5	—	△26	△25	—	△26	△25	〃																	
	T4	DM	10.5			9NL 6.2	65L 4.3	—	X 56	X 71	—	X 56	X 71	〃																	
		RS	9.4			9L 5 8	65L 4.1	—	X 21	X 39	—	X 21	X 39	〃																	
		LSSPS	9 0				65NL 9 0	—	X 5	X 6	—	X 5	X 6	〃																	
	T1	KKTEST			KK 9NL	PY 9NL	65NL	—	8	10	—	8	10	〃																	
		KKOBS			〃	〃	〃	—	3	3	—	3	3	〃																	
	T4	LSMISC					〃	—	6	6	—	6	6	〃																	
EXSELTIVE CIRCUIT		KK	10.5		KK 65L 3.2	PY 9L 3.2	65L 4.1	—	X 3	X 9	—	X 3	X 9	〃																	
		PL	10.1		PL 65L 2 8	9L 3.2	65L 4.1	—	X 3	X 9	—	X 3	X 9	〃																	
		SW	9 4		SW 9L 2.1	9L 3.2	65L 4 1	—	X 3	X 9	—	X 3	X 9	〃																	
		SW				9NL	65NL	—	100	155	—	100	155	〃																	

		'76	'80	'90	'76	'80	'90
SUB TOTAL	• 4db	141	189		141	189	
	△6db	251	246		251	246	
	X 11db	122	272		122	272	
	NL	117	174		117	174	
GRAND TOTAL		631	881		631	881	

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T5	NK ~ MSK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		TH	45			TH	9L 45	—	—	X23	—	—	X23	—	—	X23	—	—	X23	—	—	X23	NK											
	T5	TH	45	(30)(20)80		(37)	9L 45 / PCM 40	▽37	•76	•99	▽37	•76	•99	▽37	•75	•99	▽37	•76	•99	▽37	•76	•99	•											
		TH	45	(30)(20)80		(42)	9L 45 / • 20	▽42	△35	△40	▽42	△35	△40	▽42	△35	△40	▽42	△35	△40	▽42	△35	△40	•											
		KK	52		KK	65L 32	• 20	—	△23	△30	—	△23	△30	—	△23	△30	—	△23	△30	—	△23	△30	•											
	T1	KK	59 (48)	(40) (180)		9L 16 / 9L 18	9L 43 / • 20	• 9	•17	•22	• 9	•17	•22	• 9	•17	•22	• 9	•17	•22	• 9	•17	•22	•											
		TOLL	108			65NL 63	9L 45	X7	X11	X14	X7	X11	X14	X7	X11	X14	X7	X11	X14	X7	X11	X14	•											
		KK TEST				65NL	9NL	2	4	6	2	4	6	2	4	6	2	4	6	2	4	6	•											
		KK OBS				65NL	9NL	—	3	3	—	3	3	—	3	3	—	3	3	—	3	3	•											
	T2	PY	20		PY	PCM —	PCM 20	—	△16	△21	—	△16	△21	—	△16	△21	—	△16	△21	—	△16	△21	•											
	T3	AL	60	PL 9L 11	SW	65L 20	• 20	—	△18	△25	—	△18	△25	—	△18	△25	—	△18	△25	—	△18	△25	•	NK										
	T4	LS	20		LS	PCM	PCM 20	—	△8	△10	—	△8	△10	—	△8	△10	—	△8	△10	—	△8	△10	•											
	T6	PRN	20		PKN	PCM —	PCM 20	—	△16	△20	—	△16	△20	—	△16	△20	—	△16	△20	—	△16	△20	•											
	T7	SW	53		SW	65L 33	PCM 20	—	△18	△22	—	△18	△22	—	△18	△22	—	△18	△22	—	△18	△22	•											
		MISC					9NL	1	5	5	1	5	5	1	5	5	1	5	5	1	5	5	•											
	T5	CHW SPS	8.1		CHW	5L 38	9L 43	X2	X4	X5	X2	X4	X5	X2	X4	X5	X2	X4	X5	X2	X4	X5	•											
		MISC TKE					9NL	—	1	1	—	1	1	—	1	1	—	1	1	—	1	1	•											
EXSECTIVE CIRCUIT	T1	KK	108		KK	65NL 63	9L 45	—	X2	X9	—	X2	X9	—	X2	X9	—	X2	X9	—	X2	X9	•											
	T3	PL	108	PL 65L 20	SW	5L 45	9L 45	—	X2	X9	—	X2	X9	—	X2	X9	—	X2	X9	—	X2	X9	•											
	T7	SW	92		SW	5L 47	9L 45	—	X2	X9	—	X2	X9	—	X2	X9	—	X2	X9	—	X2	X9	•											
						SUB TOTAL	• 4db	9	93	121	9	93	121	9	93	121	9	93	121	9	93	121												
							△ 6db	79	134	169	79	134	169	79	134	169	79	134	169	79	134	169												
							X 11db	9	21	69	9	21	69	9	21	69	9	21	69	9	21	69												
							NL	3	13	15	3	13	15	3	13	15	3	13	15	3	13	15												
						GRAND TOTAL		100	261	374	100	261	374	100	261	374	100	261	374	100	261	374												

(MSK)

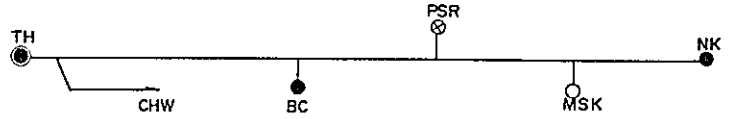
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T5	MSK ~ PSR

KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		KK	5.2			KK 65L	3.2	PCM	2.0	—	Δ33	Δ41	—	Δ33	Δ41	—	Δ33	Δ41	—	Δ33	Δ41	MSK									
		KK	3.8			9L	1.8	PCM	8.0	—	°23	°29	—	°23	°29	—	°23	°29	—	°23	°29	•									
	T1	TOLL	10.8			65NL	6.3	9L	4.5	—	X15	X19	—	X15	X19	—	X15	X19	—	X15	X19	•									
		KK, TEST				65NL		9NL		—	8	10	—	8	10	—	8	10	—	8	10	•									
		KK, OBS				65NL		9NL		—	3	3	—	3	3	—	3	3	—	3	3	•									
	T2	PY	2.0			PY PCM	—	PCM	2.0	—	Δ21	Δ27	—	Δ21	Δ27	—	Δ21	Δ27	—	Δ21	Δ27	•									
	T3	PL	6.0	PL 9L	1.1	SW 65L	2.9	TH PCM	2.0	—	Δ25	Δ33	—	Δ25	Δ33	—	Δ25	Δ33	—	Δ25	Δ33	•									
	T4	LS	2.0			LS PCM	—	PCM	2.0	—	Δ10	Δ13	—	Δ10	Δ13	—	Δ10	Δ13	—	Δ10	Δ13	•									
		TH	10.3					9NL	10.3	—	X25	X32	—	X25	X32	—	X25	X32	—	X25	X32	•									
		TH	2.0					PCM	2.0	—	°102	°136	—	°102	°136	—	°102	°136	—	°102	°136	•	MSK								
		TH	2.0					PCM	2.0	—	Δ38	Δ44	—	Δ38	Δ44	—	Δ38	Δ44	—	Δ38	Δ44	•									
	T5	MISC						9NL		—	5	5	—	5	5	—	5	5	—	5	5	•									
		CHW SPS	8.6			5NL	6.6	PCM	2.0	—	X5	X6	—	X5	X6	—	X5	X6	—	X5	X6	•									
		PC	7.6					9NL	7.6							—	—	X11	—	—	X11	•									
		PSR. TKE						9NL											—	1	1	•									
	T6	PKM	5.6			PKN PCM	—	PCM	2.0	—	Δ22	Δ26	—	Δ22	Δ26	—	Δ22	Δ26	—	Δ22	Δ26	•									
	T7	SW	5.3			SW 65L	3.3	PCM	2.0	—	Δ24	Δ29	—	Δ24	Δ29	—	Δ24	Δ29	—	Δ24	Δ29	•									
EXSECTIVE CIRCUIT	T1	KK	10.8			KK 65NL	6.3	9L	4.5	—	X2	X9	—	X2	X9	—	X2	X9	—	X2	X9	•									
	T3	PL	10.9	PL 5L	3.0	SW 5L	4.5	9L	3.4	—	X2	X9	—	X2	X9	—	X2	X9	—	X2	X9	•									
	T7	SW	11.1			SW 65NL	6.6	9L	4.5	—	X2	X9	—	X2	X9	—	X2	X9	—	X2	X9	•									
						SUB TOTAL		• 4 db		125	165		125	165		125	165		125	165												
								Δ 6 db		173	213		173	213		173	213		173	213												
								X 11 db		51	84		51	84		51	95		51	95												
								N.L		16	18		16	18		16	18		17	19												
						GRAND TOTAL				365	480		365	480		365	491		366	492												

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T5	PSR ～ BC

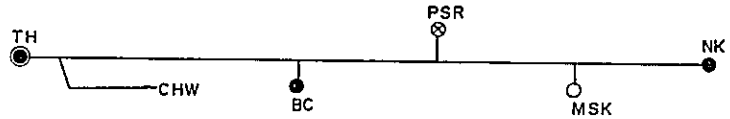
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		PTW	77	PTW 5L 30 KK 9L 14 TH 9L 0.9 BC 65L 24	—	X 23	39	—	X 23	39	—	X 23	X 39	PSR														
		KK	49	9L 16 9L 09 65L 24	Δ25	Δ43	Δ61	Δ25	Δ43	Δ61	Δ25	Δ43	Δ61															
	T1	KK TOU	(4.0) 4.9	9L 16 9L 09 65L 24	•17	•38	•57	•17	•38	•57	•17	•38	•57															
			67	65NL 32 9L 11 65L 24	X11	X23	X34	X11	X23	X34	X11	X23	X34															
		KK TEST		65NL 9L 65NL	4	12	20	4	12	20	4	12	20															
		KK OBS		65NL 9NL 65NL	3	3	3	3	3	3	3	3	3															
		BS	88	BS 9L BS6 11 65L 2 PY PCM 20 TH 9L 11 65L 24	—	—	X 10	—	—	X 10	—	—	X 10															
	T2	PY	55	PY PCM 20 TH 9L 11 65L 24	Δ17	Δ33	Δ41	Δ17	Δ33	Δ41	Δ17	Δ33	Δ41															
		ASD	85		—	—	X 20	—	—	X 20	—	—	X 20															
	T3	PL	92	PL 5L 3.0 SW 65L 29 TH 9L 0.9 65L 24	—	—	X 20	—	—	X 20	—	—	X 20															
		PL	61	PL 5L 11 SW 9L 17 9L 0.9 65L 24	Δ16	Δ40	Δ36	Δ16	Δ40	Δ36	Δ15	Δ40	Δ36															
	T4	LS	55	LS PCM 20 TH 9L 11 65L 24	Δ7	Δ15	Δ21	Δ7	Δ15	Δ21	Δ7	Δ15	Δ21															
		TH	69	TH 9NL 30 65NL 39	X24	X48	X73	X24	X48	X73	X24	X48	X73															
		TH	35	9L 11 65L 24	•76	•176	•264	•76	•176	•264	•76	•176	•264															
		TH	35	9L 11 65L 24	Δ25	Δ40	Δ40	Δ25	Δ40	Δ40	Δ25	Δ40	Δ40															
		MISC		9NL 65NL	5	5	5	5	5	5	5	5	5															
		DK	108	DK 9NL 33 TH 9NL 3.0 BC 65NL 39	—	X 12	X 19	—	X 12	X 19	—	X 12	X 19															
	T5	BKT	110	BKT 65L 28 DK 9L 13 9NL 8 0 65NL 39	—	—	X 10	—	—	X 10	—	—	X 10															
		CHW	109	CHW 5L 40 9NL 3.0 65NL 39	—	X 11	X 37	—	X 11	X 37	—	X 11	X 37															
		CHW SPS	109	CHW 5L 40 9NL 3 0 65NL 39	X 4	X 7	X 10	X 4	X 7	X 10	X 4	X 7	X 10															
		BC	39	BC 65NL 39							—	X 22	X 41															
		BC TKE		65NL							1	1	1															
		MSKTKE		MSK 9NL										—	1	1												
	T6	PKN	55	PKN PCM 2.0 TH 9L 1.1 65L 24	Δ17	Δ34	Δ49	Δ17	Δ34	Δ49	Δ17	Δ34	Δ49															
	T7	SW	80	SW 5L 47 9L 0.9 65L 24	—	—	X 33	—	—	X 33	—	—	X 33															
		SW	50	SW 9L 1.7 9L 0.9 65L 24	Δ20	Δ38	Δ26	Δ20	Δ38	Δ26	Δ20	Δ38	Δ26															
EXSECTIVE CIRCUIT	T1	KK	98	KK 65NL 63 9L 11 65L 24	X11	X23	X34	X11	X23	X34	X11	X23	X34															
	T3	PL	108	PL 5L 3.0 SW 5L 45 TH 9L 0.9 65L 24	X 1	X 3	X 9	X 1	X 3	X 9	X 1	X 3	X 9															
	T7	SW	80	SW 5L 47 9L 0.9 65L 24	X 1	X 3	X 9	X 1	X 3	X 9	X 1	X 3	X 9															
		SW		5NL 9NL 65NL	2	4	6	2	4	6	2	4	6															
				SUB TOTAL • 4 db	93	214	321	93	214	321	93	214	321															
				SUB TOTAL Δ 6 db	127	243	274	127	243	274	127	243	27															
				SUB TOTAL X 11 db	52	153	357	52	153	357	52	175	398															
				SUB TOTAL N L	14	24	34	14	24	34	15	25	35		1	1											
				GRAND TOTAL	286	634	986	286	634	986	287	657	1 028		1	1											

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T5	BC ~ TH



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)			'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T1	BP	87	BP 65L 2.2	HW 5L 3.6	TH 5L 2.9	—	—	X22	—	—	X22	BC																	
		PTW	87	PTW 5L 3.0	KK 65L 28	5L 2.9	—	X23	X49	—	X23	X49	"																	
		SS	83	SS 5L 2.6	KK 65L 28	5L 2.9	—	X23	X26	—	X23	X26	"																	
		KK	45		KK 9L 1.6	5L 2.9	Δ56	Δ43	Δ34	Δ56	Δ43	Δ34	"																	
		KK TOLL	27		KK 9L 1.6	9L 1.1	•38	•38	•71	•38	•38	•71	"																	
			8.2		KK 65L 32	5NL 5.0	X23	X23	X41	X23	X23	X41	"																	
		KK. TEST			KK 65L	5NL	12	12	26	12	12	26	"																	
		KK OBS				65NL 5NL	3	3	3	3	3	3	"																	
	T2	BS	10.3	BS 9L 1.1	BSD 5L 2.2	PY PCM 20	TH 5NL 5.0	—	—	X24	—	—	X24	"																
		IM	11.0	IM 65NL 4.0		PY PCM 20	5NL 5.0	—	—	X10	—	—	X10	"																
		LP-I	10.1		LPI 65L 3.1	PCM 20	5NL 5.0	—	—	X10	—	—	X10	"																
		PY	5.1			PCM 20	5L 3.1	Δ36	Δ33	Δ50	Δ36	Δ33	Δ50	"																
	T3	ASD	8.8	ASD 5L 3.5	PL 9L 0.9	SW 9L 1.5	5L 2.9	—	X10	X35	—	X10	X35	"																
		SKV		SKV 65L	9L 0.9	SW 65L 2.9	5L 2.9	—	—	X31	—	—	X31	"																
		PL	8.8		PL 5L 3.0	SW 65L 2.9	TH 5L 2.9				—	—	X54	"																
		PL	5.1		PL 9L 1.1	SW 65L 2.9	9L 1.1				Δ33	Δ40	Δ23	"	BC															
	T4	LS	5.1			LS PCM 20	5L 3.1				Δ13	Δ15	Δ25	"																
	T5	DK	8.3			DK 9NL 33	TH 5NL 5.0				X18	X13	X37	"																
		BKT	9.1		BKT 65L 2.6	SM 9L 1.0	5NL 5.0				—	—	X29	"																
		CHW	9.0			CHW 5L 4.0	5NL 5.0				X11	X12	X51	"																
		CHW SPS	9.0			CHW 5L 4.0	5NL 5.0				X7	X7	X12	"																
		TH	5.0				5NL 5.0				X68	X49	X97	"																
		TH	3.1				5L 3.1				•203	195	•210	"																
		TH	5.0				5NL 5.0				Δ30	Δ38	Δ40	"																
		MISC					5NL				6	6	6	"																
	T6	ONI	11.8	ONI 5L 4.2		PKN PCM 20	TH 5NL 5.0				—	—	X11	"																
		HM	9.9	HM 9L 2.5	PL 9L 0.9	PKN 9L 1.5	5NL 5.0				—	—	X14	"																
		PKN	4.7			PKN PCM 20	5L 2.7				Δ36	Δ34	Δ60	"																
	T7	SW	9.9			SW 5L 4.7	5NL 5.2				—	—	X72	"																
		SW	6.2			SW 65L 3.3	5L 2.9				Δ45	Δ38	Δ34	"																
	T1	SR	9.8			SR 5NL 4.8	5NL 5.0				—	—	X69	"																
EXSECTIVE CIRCUIT		SR				5NL	5NL				10	15	30	"																
		SW	9.9			SW 5L 4.7	5NL 5.2				X1	X3	X9	"																
		PL	10.4	PL 5L 5.0		SW 5L 4.5	5L 2.9				X2	X3	X5	"																
		KK	8.0			65L 3.0	5NL 5.0				X23	X45	X60	"																
						SUB TOTAL	• 4 db	38	38	71	241	233	281																	
							Δ 6 db	92	76	84	249	241	266																	
							X 11 db	23	56	248	153	165	719																	
							NL	15	15	29	31	59	114																	
						GRAND TOTAL		168	185	432	674	698	1380																	

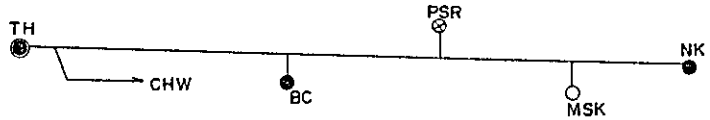
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T5	TH ~ CHW



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		SR	8.8		SR 5NL 4.8	5L 4.0		X81	X105	X207	CHW																				
		PTW	8.2	DTW 5L 3.0	K 9L 1.4	5L 3.8		—	X48	X106	•																				
		KK	9.8		K 65L 3.2	5NL 6.6		X26	X30	X33	•																				
	T1	KK	5.4		K 9L 1.6	5L 3.8		△33	△40	△45	•																				
		KK	9.8		K 65L 3.2	5NL 6.6		X20	X31	X56	•																				
		TOLL	(4.0) 5.4		K 9L 1.6(3.3)	5L 3.8		•33	•51	•98	•																				
		KK OBS TEST			65NL	5NL		13	21	41	•																				
		BS	9.3	BS 9L 1.1	BS 65L 2.2	PY PCM 2.0	5L 4.0	—	X10	X39	•																				
		IM	10.0	IM 65NL 4.0	PY PCM 2.0	5L 4.0		—	—	X32	•																				
	T2	LP-I	9.1	LP 65L 5.1	PY PCM 2.0	5L 4.0		—	—	X34	•																				
		PY	8.6	PY PCM 2.0	SW PCM —	TH 5NL 6.6		X10	X10	X24	•																				
		PY	6.0		PY PCM 2.0	TH 5L 4.0		△30	△38	△34	•																				
		ASD	8.6	ASD	PCM 2.0	5L 3.9		—	X30	X60	•																				
		SKV	10.5	SKV 65L 2.0	65L 1.8	65L 2.9	5L 3.8	—	X12	X45	•																				
	T3	PL	8.7	PL 65L 2.0	SW 65L 2.9	5L 3.8		X22	X28	X98	•																				
		MM	10.0	MM 5NL 4.5	SW 9L 1.7	5L 3.8		—	—	X19	•																				
		PL	(6.0) 6.6	PL 9L 1.1	SW 9L 17(2.1)	X 5L 3.8		△21	△25	△30	•																				
	T4	LS	6.0		LS PCM 2.0	5L 4.0		△11	△18	△32	•																				
		TH	6.6			5NL 6.6		X54	X68	X136	•																				
		TH	4.0			5L 4.0		•124	•208	•233	•																				
		TH	4.0			5L 4.0		△25	△43	△48	•																				
		SPS	6.6			TH 5NL 6.6		X17	X18	X26	•	CHW																			
		MISC TKE				5NL		9	9	9	•																				
		PD	8.6		PD PCM 2.0	5NL 6.6		—	—	X16	•																				
		PD SPS	8.6		PD PCM 2.0	5NL 6.6		X5	X6	X8	•																				
		DK	9.9		DK 9NL 3.3	5NL 6.6		X11	X24	X49	•																				
	T5	DK SPS	9.9		DK 9NL 3.3	5NL 6.6		X9	X10	X14	•																				
		BKT	10.7	BKT 65L 2.8	DK 9L 1.3	5NL 6.6		—	—	X39	•																				
		BKT SPS	10.7	65L 2.8	9L 1.3	5NL 6.6		—	X8	X13	•																				
		PPJ SPS	8.6		PJ PCM 2.0	5NL 6.6		—	X3	X5	•																				
		NK SPS	8.1		NK 9L 4.3	5L 3.8		X2	X4	X5	•																				
		MSK SPS	8.6		MSK PCM 2.0	5NL 6.6		—	X5	X6	•																				
		PSR	10.9	PSR 65NL 3.9	BC 9NL 3.0	5L 4.0		—	X11	X37	•																				
		PSR SPS	10.9	65NL 3.9	9NL 3.0	5L 4.0		X4	X7	X10	•																				
		BC	9.6		BC 5NL 5.0	5L 4.0		X11	X12	X51	•																				
		BC SPS	9.0		5NL 5.0	5L 4.0		X7	X7	X12	•																				
		ONI	10.0	DNI 5L 4.2	PKN 5NL 2.0	5L 3.7		—	—	X15	•																				
	T6	HM	8.6	HM 9L 2.5	PL 9L 0.9	SW 9L 1.5	5L 3.7	—	—	X31	•																				
		PKM	8.6		PKN PCM 2.0	5NL 6.6		—	—	X12	•																				
		PKN	5.8		PCM 2.0	5L 3.8		△31	△45	△73	•																				
		TK	8.3	TK 9L 1.6	SW 65L 2.9	5L 3.8		—	—	X15	•																				
	T7	TC	8.3	TK 5L 3.1	SW 9L 1.4	5L 3.8		—	X18	X49	•																				
		SW	8.5		SW 5L 4.7	5L 3.8		X81	X99	X186	•																				
		SW	6.5		SW 9L 1.7	5L 3.8		△25	△28	△33	•																				
		SW	8.5		SW 5L 2.7	5L 3.8		X1	X3	X9	•																				

(CHW)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T5	TH ~ CHW



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
EXSECTIVE CIRCUIT		SW				SW 5NL	5NL	2	4	6	CHW																				
		PL	10 3	PL	65L 2.0	SW 5L 4 5	5L 3 8	X 1	X 3	X 9	"	CHW																			
		KK	9 8			65L 3 2	5NL 6 6	X 11	X 23	X 34	"																				
						SUB TOTAL	+ 4 db	157	259	331																					
							△ 6 db	176	238	295																					
							X 11 db	273	633	1 548																					
							NL	24	34	56																					
						GRAND TOTAL		730	1 164	2227																					

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T5 T1	CHW ~ BP

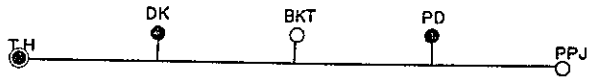
CHW ⊗——● BP

KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (db)				LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
EXSECTIVE CIRCUIT	T5	TH	86			TH 5L 40	CHW 65NL 46	X71	X52	X100	BP																			
		TH	60			5L 35	65L 22	△29	△40	△51	-																			
		BC	110	B C 5NL 50		TH 5L 36	65L 22			X22	-																			
		DK	90	D K 9NL 33		5L 38	65L 22	X10		X25	-	BP																		
		CHW	46				65NL 46	X22	X24	X56	-																			
		CHWSPS	46				65NL 46	X9	X9	X15	-																			
		SS	73			SS 5NL 27	BP 65NL 46			X35	SS																			

		'76	'80	'90
SUB TOTAL	• 4db			
	△ 6db	29	40	51
	X 11db	112	85	253
	NL			
GRAND TOTAL		141	125	304

(PPJ)

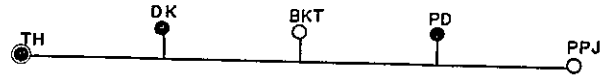
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T5	PPJ ~ PD



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)			'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		KK	5.2		KK 65L 3.2	PCM 2.0	—	Δ22	Δ40	—	Δ22	Δ40	—	Δ22	Δ40	—	Δ22	Δ40	PPJ											
	T1	KK TOLL	5.2		65L 3.2	2.0	—	X10	X17	—	X10	X17	—	X10	X17	—	X10	X17	"											
		TEST	3.8		9L 1.3	2.0	—	•15	•26	—	•15	•26	—	•15	•26	—	•15	•26	"											
		KK OBS			65NL	9NL	—	7	11	—	7	11	—	7	11	—	7	11	"											
	T2	PY	2.0		PY PCM —	PCM 2.0	—	Δ14	Δ24	—	Δ14	Δ24	—	Δ14	Δ24	—	Δ14	Δ24	"											
	T3	PL	4.8	PL 9L 1.1	SW 9L 1.7	PCM 2.0	—	Δ18	Δ33	—	Δ18	Δ33	—	Δ18	Δ33	—	Δ18	Δ33	"											
	T4	LS	2.0		LS PCM —	PCM 2.0	—	Δ7	Δ11	—	Δ7	Δ11	—	Δ7	Δ11	—	Δ7	Δ11	"											
		TH	2.0			PCM 2.0	—	—	X10	—	—	X10	—	—	X10	—	—	X10	"											
		TH	2.0			PCM 2.0	—	•65	•108	—	•65	•108	—	•65	•108	—	•65	•108	"											
		TH	2.0			PCM 2.0	—	Δ23	Δ42	—	Δ23	Δ42	—	Δ23	Δ42	—	Δ23	Δ42	"	PPJ										
	T5	MISC				9NL	—	6	6	—	6	6	—	6	6	—	6	6	"											
		CHW SPS	8.6		CHW SNL 6.6	PCM 2.0	—	X3	X5	—	X3	X5	—	X3	X5	—	X3	X5	"											
		PD	5.8			9L 5.8										PD	X12	X37	"											
						9NL											—	1	"											
	T6	PKN	2.0		PKN PCM —	PCM 2.0	—	Δ13	Δ20	—	Δ13	Δ20	—	Δ13	Δ20	—	Δ13	Δ20	"											
	T7	SW	5.3		SW 65L 3.3	PCM 2.0	—	Δ16	Δ25	—	Δ16	Δ25	—	Δ16	Δ25	—	Δ16	Δ25	"											
EXSECTVE CIRCUIT		KK	(11.0) 11.4		KK 9L 5.6	9L 5.8	—	X2	X9	—	X2	X9	—	X2	X9	—	X2	X9	"											
		PL	10.5	PL 65L 2.0	SW 65L 2.7	9L 5.8	—	X2	X9	—	X2	X9	—	X2	X9	—	X2	X9	"											
		SW			SW 65NL	9NL	—	X2	X9	—	X2	X9	—	X2	X9	—	X2	X9	"											
					SUB TOTAL	; 4 db	80	134		80	134		80	134		80	134													
						Δ 6 db	113	195		113	195		113	195		113	195													
						X11 db	19	59		19	59		19	59		31	96													
						NL	13	17		13	17		13	17		14	18													
					GRAND TOTAL		225	405		225	405		225	405		238	443													

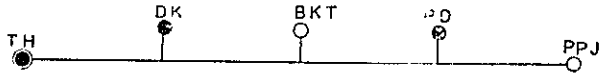
(PD)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T5	PPJ ~ BKT



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)					'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		SR	6.8			SR 5NL 4.5		PCM 2.0	X30	X33	X78	X30	X33	X73	X30	X33	X78	PD													
		PTW	9.9		PTW 5NL 5.1	KK 9L 1.8		PCM 2.0	—	—	X18	—	—	X18	—	—	X18	•													
	T1	KK	5.2			KK 63L 3.2		PCM 2.0	Δ37	Δ42	Δ40	Δ37	Δ42	Δ40	Δ37	Δ42	Δ40	•													
		KK TOLL	8.2			SW 65NL 6.3		PCM 2.0	X14	X17	X26	X14	X17	X26	X14	X17	X26	•													
		TEST	3.8			KK 9L 1.8		PCM 2.0	•22	•27	•42	•22	•27	•42	•22	•27	•42	•													
		KK. OBS				65NL		9NL	9	11	17	9	11	17	9	11	17	•													
	T2	PY	4.0			PY PCM 2.0		TH PCM 2.0	Δ21	Δ24	Δ37	Δ21	Δ24	Δ37	Δ21	Δ24	Δ37	•													
		ASD	9.5	ASD 5L 3.5	PL 9L 0.9	SW 65L 3.1		PCM 2.0	—	—	X12	—	—	X12	—	—	X12	•													
	T3	SKV	8.0	SKV 65L 2.0	PL 9L 0.9	SW 65L 3.1		PCM 2.0	—	—	X10	—	—	X10	—	—	X10	•													
		PL	6.0		PL 9L 1.1	SW 65L 2.9		PCM 2.0	Δ23	Δ33	Δ53	Δ23	Δ33	Δ53	Δ23	Δ33	Δ53	•													
	T4	LS	4.0			LS PCM 2.0		PCM 2.0	Δ8	Δ10	Δ15	Δ8	Δ10	Δ15	Δ8	Δ10	Δ15	•													
		TH	9.5					9NL 9.5	X28	X28	X44	X28	X28	X44	X28	X28	X44	•													
		TH	2.0					PCM 2.0	•116	•156	•167	•116	•156	•167	•116	•156	•167	•													
		TH	2.0					PCM 2.0	Δ17	Δ38	Δ34	Δ17	Δ38	Δ34	Δ17	Δ38	Δ34	•													
	T5	TH MISC	9.5					9NL 9.5	6	6	6	6	6	6	6	6	6	PD													
		CNW	8.6			CHW 5NL 6.6		PCM 2.0	—	—	X16	—	—	X16	—	—	X16	•													
		CHW SPS	8.6			CHW 5NL 6.6		PCM 2.0	X5	X6	X8	X5	X6	X8	X5	X6	X8	•													
		BKT	6.1	BKT 65L 2.8		DK 9L 1.3		PCM 2.0	—	—	X23	—	—	X23	—	—	X23	•													
		DK	6.3				DK	9NL 6.3			DK	X10	—	X28	X10	—	X28	•													
		DK TKE						9NL				1	2	2	1	2	2	•													
	T6	PKN	4.0			PKN PCM 2.0		TH PCM 2.0	Δ19	Δ22	Δ31	Δ19	Δ22	Δ31	Δ19	Δ22	Δ31	•													
		SW	6.9			SW 5L 4.9		PCM 2.0	—	—	X30	—	—	X30	—	—	X30	•													
	T7	SW	5.3			SW 65L 3.3		PCM 2.0	Δ26	Δ28	Δ40	Δ26	Δ28	Δ40	Δ26	Δ28	Δ40	•													
EXSECTIVE CIRCUIT		KK	8.3			KK 63NL 6.3		TH PCM 2.0	X3	X5	X10	X3	X5	X10	X3	X5	X10	•													
		PL	9.7		PL 5L 3.0	SW 5L 4.7		PCM 2.0	X2	X3	X5	X2	X3	X5	X2	X3	X5	•													
		SW	6.9			SW 5L 4.9		PCM 2.0	X1	X3	X9	X1	X3	X9	X1	X3	X9	•													
		SW				SW 5NL		9NL	5	10	16	5	10	16	5	10	16	•													
						SUB TOTAL	• 4 db		138	183	209	138	183	209	138	183	209														
							Δ 6 db		151	198	250	151	198	250	151	198	250														
							X11 db		83	95	289	93	105	317	93	105	317														
							NL		20	27	39	21	29	41	21	29	41														
						GRAND TOTAL			392	503	787	403	515	817	403	515	817														

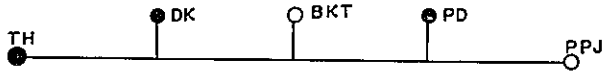
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T5	TH ~ BKT



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)			'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T1	SR	8.9	KK 5NL 4.8	TH 9L 1.1	DK 65L 2.8	—	—	X 63	—	—	X 63	BKT																	
		PTW	8.1	PTW 9L 2.8 KK 65L 1.4	TH 9L 1.1	DK 65L 2.8	—	—	X 36	—	—	X 36	•																	
		SS	10.5	SS 5NL 3.4 KK 65L 3.0	TH 9L 1.1	DK 65L 2.8	—	—	X 12	—	—	X 12	•																	
		KK	8.5	KK 9L 1.6	TH 9L 1.1	DK 65L 2.8	—	△53	△47	—	△53	△47	•																	
		KK	10.4	KK 65NL 6.5	TH 9L 1.3	65L 2.8	—	X25	X44	—	X25	X44	•																	
		TOLL	(4.0) 5.5	KK 9L 1.6	TH 9L 1.1	DK 65L 2.8	—	•40	•75	—	•40	•75	•																	
		KK TEST OBS		65NL	9NL	65NL	—	17	31	—	17	31	•																	
	T2	BS	9.4	BS 65L 9L 1.1 65L 2.2 PY PCM 2.0	TH 9L 1.3	DK 65L 2.8	—	—	X14	—	—	X14	•																	
		PY	6.1	PY PCM 2.0	DK 9L 1.3	DK 65L 2.8	—	△35	△53	—	△35	△53	•																	
	T3	ASD	9.8	ASD 5L35 PL 9L 0.9 SW 9L 1.5	TK 9L 1.1	DK 65L 2.8	—	—	X11	—	—	X11	•																	
		PL	(6.0) 6.1	PL 9L 1.1 SW 9L 1.7	TH 9L 1.1	DK 65L 2.8	—	›33	›64	—	›33	›64	•																	
	T4	LS	6.1	LS PCM 2.0	TH 9L 1.3	65L 2.8	—	△16	△27	—	△16	△27	•																	
		TH	9.2		TH 9NL 3.3	65NL 5.9	—	X40	X78	—	X40	X78	•																	
		TH	4.1		TH 9L 1.3	65L 2.8	—	•188	•287	—	•188	•287	•																	
		TH	4.1		TH 9L 1.3	65L 2.8	—	△38	△38	—	△38	△38	•	BKT																
		MSG			9NL	65NL	—	5	5	—	5	5	•																	
	T5	PD	6.1	PD PCM 2.0	TH 9L 1.3	DK 65L 2.8	—	—	X23	—	—	X23	•																	
		DK	5.9		DK	65NL 0.9	—	X22	X39	—	X22	X39	•																	
		DK TKE				65NL	—	1	1	—	1	1	•																	
		BC	9.1	BC 5NL 3.0	TH 9L 1.5	DK 65L 2.8	—	—	X29	—	—	X29	•																	
		PSR	11.0	PSR 65NL 3.9 BC 9NL 3.0	9L 1.3	65L 2.8	—	—	X10	—	—	X10	•																	
		CHW	10.7	CHW 5NL 6.6	9L 1.3	65L 2.8	—	—	X39	—	—	X39	•																	
		CHW SPS	10.7	CHW 5NL 6.6	9L 1.3	65L 2.8	—	X 8	X13	—	X 8	X13	•																	
	T6	HM	11.1	HM 9L 2.5 65L 1.8	65L 2.9	65L 2.8	—	—	X10	—	—	X10	•																	
		PKN	6.9		PKN PCM 2.0	TH 65L 4.9	—	△56	△56	—	△36	△56	•																	
	T7	SW	9.6	SW 5L 4.7	TH 9L 1.1	DK 65L 2.8	—	—	X36	—	—	X36	•																	
		SW	5.6	9L 1.7	9L 1.1	65L 2.8	—	△40	△38	—	△40	△38	•																	
EXSECTIVE CIRCUIT		KK	10.4	KK 65NL 6.3	9L 1.3	65L 2.8	—	X 3	X 9	—	X 3	X 9	•																	
		PL	10.4	PL 65L 2.0 SW 9L 4.5	9L 1.1	65L 2.8	—	X 3	X 9	—	X 3	X 9	•																	
		SW		SW 5NL	TH 9NL	DK 65NL	—	X 3	X 9	—	X 3	X 9	•																	

		'76	'80	'90	'76	'80	'90
SUB TOTAL	• 4 db	228		362	228		362
	△ 6 db	251		323	251		323
	X W db	104		484	104		484
	N L	23		37	23		37
GRAND TOTAL		606		1206	606		1206

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T5	DK ~ TH



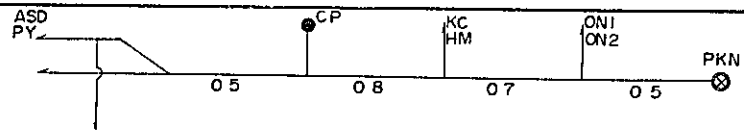
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		SR	5.1	SR 5NL 4.8 TH 9NL 3.3	X36	X 30	X 75	DK																				
		BP	9.3	BP 65L 2.2 CHW 5L 3.8 • 3.3	X10	—	X 25	•																				
		PTW	9.1	PTW 5L 2.8 KK 65L 3.0 • 3.3	—	X 30	X 52	•																				
		SS	8.9	SS 5L 2.6 KK 65L 3.0 • 3.3	—	—	X 29	•																				
	T1	KU	9.9	KK 65NL 6.3 • 3.3	X40			•																				
		KK	5.1	KK 9L 1.8 • 3.3	△50	△56	△37	•																				
		KK	9.9	KK 65NL 6.3 • 3.3	X29	X31	X 46	•																				
		KK TOLL	2.0	KK 9L 1.6 9L 1.3 • 47	• 52	• 30	•																					
		KK TEST OB		65NL 9NL 19	21	33	•																					
		BS	8.6	BS 9L 1.1 BS 65L 2.2 PY PCM 2.8 TH 9NL 3.3 —	—	X 28	•																					
	T2	IM	10.4	IM 5NL 4.0 PY • 2.0 TH 9NL 3.3 —	—	X 22	•																					
		CP-I	8.4	LP 65L 3.1 PY • 2.0 • 3.3 —	—	X 11	•																					
		PU	5.3	PY • 2.0 • 3.3 △44	△45	△47	•																					
		PL	11.0	PL 5L 3.0 SW 5L 4.7 • 3.3 —	—	X 48	•																					
		MM	7.5	MM • 2.6 SW • 4.9 • 3.3 —	—	X 26	•																					
	T3	ASD	10.8	ASD 5L 3.5 PL 9L 0.9 SW 65L 3.1 • 3.3 —	X 13	X 33	•																					
		SUV	9.3	SUV 65L 2.0 PL • 0.9 SW • 3.1 • 5.3 —	—	X 14	•																					
		PL	5.2	PL 65L 2.5 SW 65L 2.9 ·9L 1.3 △35	△42	△27	•																					
	T4	LS	5.3	LS PCM 2.0 9NL 3.5 △15	△19	△28	•																					
	T5	TH	3.3	9NL 3.3 X76	X61	X 94	•																					
		TH	3.3	• 3.3 •185	•230	• 223	•																					
		TH	3.3	• 3.3 △39	△33	△37	•																					
		TH		9NL 6	6	6	•																					
		BUT	5.9	BUT 65NL 5.9 —	X 22	X 39	•																					
		BUT TUE		BUT 65NL —	1	1	•																					
		BC	8.3	BC 5NL 5.0 TH 9NL 3.3 X18	X 13	X 37	•																					
		PSR	10.2	PSR 65NL 3.9 BC 9NL 3.0 • 3.3 —	X 12	X 19	•																					
		CHW	9.9	CHW 5NL 6.6 • 3.3 X11	X 24	X 49	•																					
		CHW SPS	9.9	CHW 6.6 • 3.3 X 9	X 10	X 14	•																					
	T6	KC	8.8	9L 1.9 MM 9L 2.3 BL 65L 1.8 SW 9L 1.5 ·9L 1.3 —	—	X 10	•																					
		ON-I	9.5	ON-I 5L 4.2 PKN • 2.0 9NL 3.8 —	—	X 11	•																					
		HM	10.7	·9L 2.5 65L 1.8 65L 3.1 • 3.5 —	—	X 13	•																					
		PUN	5.3	PKN PCM 2.0 • 3.3 △45	△46	△67	•																					
	T7	SW	8.2	SW 5L 4.9 • 3.3 X78	X 63	X 90	•																					
		TU	10.8	TK 5L 4.4 SW 65L 3.1 TH • 3.5 —	—	X 10	•																					
		TC	9.1	TC 5L 3.1 SW. 5L 4.7 9L 1.3 —	X 11	X 26	•																					
		SW	6.0	SW. 5L 4.7 9L 1.3 △20	△25	△24	•																					
EXSECTIVE CIRCUIT		SR		5NL 9NL 3	5	10	•																					
		SW		SW 9NL 7	12	21	•																					
		PL	11.0	PL 5L 3.0 SW 5L 4.7 9NL 3.3 X 2	X 3	X 5	•																					
		KK	9.9	KK 65NL 6.3 ·9NL 3.3 X18	X 33	X 57	•																					

SUB TOTAL	'76	'80	'90
• 4 db	232	282	303
△ 6 db	248	271	267
X 11 db	327	356	877
N L	35	45	71
GRAND TOTAL	842	956	1518

(CP)

NO (1/2)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T6	CP ~ PKN



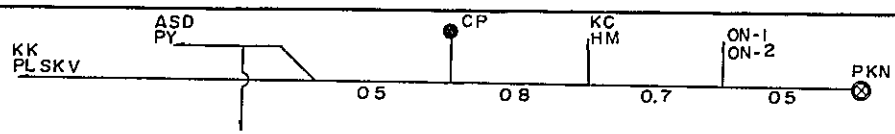
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d b)				LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
								CP			250	296	326	250	296	326	250	296	326	PKN			65NL 2.4 PKN				2.4	PKN		
								'			△66	△116	△126	△66	△116	△126	△66	△116	△126	PKN			' '					PKN		
								'			X24	X36	X44	X24	X36	X44	X24	X36	X44	PKN			' '					PKN		
								'			X20	X20	X24	X20	X20	X24	X20	X20	X24	PKN SPS			' '					PKNSPS		
								'			1	1	1	1	1	1	1	1	1	PKN TKS			' '					PKNTKE		
								'			9	9	9	9	9	9	9	9	9	PKN MUC			' '					PKNMSC	T6	GENERAL CIRCUIT
								CP			X94	X62	X72	X94	X62	X72	X94	X62	X72				' '	5NL 5.9 BN			8.3	BN		
								'			X52	X62	X74	X52	X62	X74	X52	X62	X74				' '	65L 2.2 BN	65L 2.1 PS		0.7	PS		
								'			X24	X20	X22	X24	X20	X22	X24	X20	X22				' '	65L 3.9 PS	9L 1.6 SMP		8.1	SMP		
								'			—	—	X30	—	—	X30	—	—	X30				' '	9L 3.6 ON-2			6.0	ON-2		
								'			—	X28	X80	—	X28	X80	—	X28	X80				' '	5L 4.2 ON-1			1.6	ON-1		
								'			X78	X68	X74	KC									5L 0.7 PKN	65L 2.3 HM	65L 3.4 KC		6.4	KC		
								'			X90	X112	X56	HM									65L 1.2 b	65L 2.5 HM			3.7	HM		
								'			1	1	1	HM TKE									65NL	65NL				HM.TKE		
					SUB	• 4 db			250	296	326	250	296	326	250	296	326													
						△ 6 db			66	116	126	66	116	126	66	116	126													
					TOTAL	X 11 db			382	408	576	214	228	346	214	228	346													
						NL			11	11	11	10	10	10	10	10	10													
					GRAND	TOTAL			709	831	1039	540	650	808	540	650	808													

NO 98

(C P)

NO (2/2)

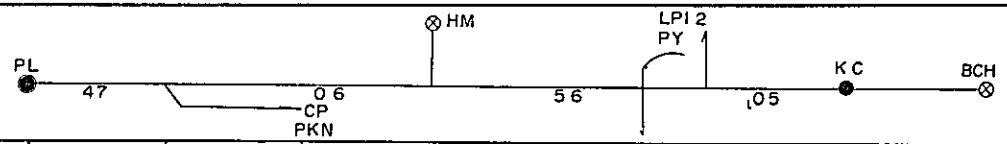
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T6	CP ~ ASD PY PL



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d·b)	LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
GENERAL CIRCUIT	T4	LS	4.0	L S PCM 2.0 P L 9L 2.0	△38	△62	△76				△38	△62	△76											
		BK	8.9	B K 9L 2.4 P Y 65L 2.6 A SD 65L 3.9				X20	—	—	X20	—	—	CP									
		PY	5.5	P Y 9L 1.6 A SD 65L 3.9				△76	△58	△62	△76	△58	△62										
		PY	10.0	· 65NL 6.1 65L 3.9			PY	X128	X56	X48	X128	X56	X48										
	T2	BS	9.7	B S 9L 1.1 B Sb 65L 2.0 65L 6.6			PY	X48	X20	X58	X48	X20	X58	CP									
		IM	8.5	I M 65L 2.0 P Y 65L 2.6 65L 3.9			BS	X20	X54	X66	X20	X54	X66										
		LP-1	8.2	L P 65L 2.9 P Y 9L 1.4 A SD 65L 3.9			IM	X26	X60	X84	X26	X60	X84										
							LP-1																
		KK	5.6	K K 65L 2.3 P L 65L 3.3	△94	△104	△94				△94	△104	△94	— X56	X66		LP2	5L 1.2	b 65L 2.3 H M ·65L 3.2 K C 9L 1.6 LP2	8.3	LP2	T2	
		KK TOLL	3.5	· 65L 1.3 9L 2.2	·114	·114	·136				·114	·114	·136	CP									
		KK	8.6	5L 3.5 · 5L 5.1	X68	X68	X80				X68	X68	X80										
	T1	KK TEST	8.6	· 5L 3.5 · 5L 5.1	X160	X76	X60				X160	X76	X60										
		KK OBS		5NL · 5NL	40	40	52				40	40	52										
		SS	10.2	· 5NL · 5NL	3	3	3				3	3	3										
		SR	8.5	S S 65NL 3.4 5L 3.5 · 65L 3.3	—	—	X52				—	—	X52										
		BP	9.8	S R 65L 3.4 5L 5.1	X390	X300	X334				X390	X300	X334										
		PTW	8.2	B P 65L 2.6 65L 2.1 · 5L 5.1	X32	X22	X30				X32	X22	X30										
		PL	5.3	P TW 9L 2.9 5L 5.3	X32	X122	X156				X32	X122	X156										
	T3	PL	9.0	P L 5L 5.3	△48	△48	△56				△48	△48	△56										
		PL TKE		· 5NL 9.0	X268	X200	X276				X268	X200	X276										
		MM		5NL	1	1	1				1	1	1										
		MM	7.9	5NL	1	1	1				1	1	1	CP									
		SKV	3.8	M M 5L 3.8 M M 5L 4.1	X146	X98	X146				X146	X98	X146										
		ASD	8.5	S KV 5NL 3.8	—	X140	X164				—	X140	X164										
		SW	5.3	A SD 65NL 8.5				X62	X142	X172	X62	X142	X172										
	T7	SW	8.1	S W 65L 2.0 P L 65L 3.3	△76	△74	△86				△76	△74	△86										
		TK	7.7	5L 3.0 5L 5.1	X390	X282	X312				X390	X282	X312										
		TC	9.2	T K 9L 1.6 5L 2.8 · 65L 3.3	—	X20	X22				—	X20	X22										
		TH	5.1	T C 5L 3.1 · 5L 2.8 · 65L 3.3	X22	X36	X40				X22	X36	X40										
	T5	TH	9.4	T H 9L 1.5 · 65L 1.8 9L 1.8	△74	△78	△100				△74	△78	△100										
		KK	8.6	65L 3.1 65L 1.9 · 65L 4.4	X88	X66	X78				X88	X66	X78										
EXSECTIVE CIRCUIT	T1	SR	10.5	K K 5L 3.5 P L 5L 5.1	X41	X80	X108				X41	X80	X108										
		SR		5L 2.1 · 5L 3.5 · 5L 5.1	X2	X2	X4				X2	X2	X4										
	T3	PL	9.0	5NL · 5NL 5NL	4	8	16				4	8	16										
	T7	SW	8.6	· 5NL 9.0	X13	X25	X35				X13	X25	X35										
		SW		S W 5L 3.3 5L 5.1	X4	X4	X6				X4	X4	X6										
				5NL · 5NL	36	52	74				36	52	74										
				SUB TOTAL · 4db	114	114	136				114	114	136										
				△6db	330	366	412	76	58	62	406	424	474										
				X11db	1656	1541	1923	304	332	428	1960	1873	2351										
				NL	85	105	147				85	105	147										
				GRAND TOTAL	2185	2126	2618	380	390	490	2565	2516	3108										

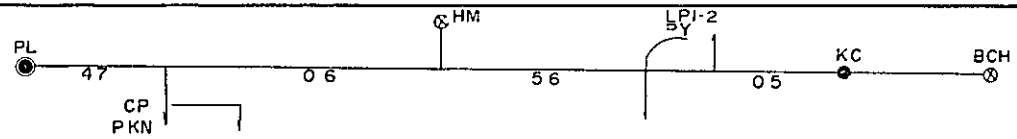
N099

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T6	HM ~ PL



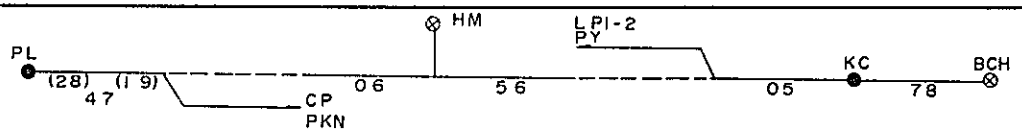
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERL CIRCTUIT	T2	PY	4.0	PY 9L 1.5 PL 9L 2.5	△47	△51	△35				△47	△31	△35	HM																	
		PU	7.1	65L 2.8 65L 4.3	X26	X32	X67				X26	X32	X67	'																	
		BS	9.1	9L 1.1 9L 1.1 65L 2.6 65L 4.3	—	X22	X54				—	X22	X54	'																	
		IN	8.9	IN 65L 2.0 65L 2.6 ' 4.3	—	X33	X62				—	X53	X62	'																	
	T3	ASD	7.8	ASD 5L 3.5 PL 65L 4.3	X10	X83	X57				X10	X83	X57	'																	
		PL	2.7	PL 9L 2.7	△28	△33	△49				△28	△33	△49	'																	
		PL	9.3	65NL 9.3	X88	X122	X66				X88	X122	X66	'																	
		MM	8.2	PM 5L 3.9 65L 4.3	X45	X55	X129				X45	X55	X129	'																	
		SKY	7.4	SKV 5L 3.1 65L 4.3	—	X81	X147				—	X81	X147	'																	
		SW	4.5	SW 65L 2.0 PL 9L 2.5	△28	△36	△35				△28	△36	△35	'																	
	T7	SW	7.3	5L 3.0 65L 4.3	X141	X186	X324				X141	X186	X324	'																	
		TK	8.5	TK 5L 4.4 65L 1.8 9L 2.5	—	—	X29				—	—	X29	'																	
		SP	9.7	SP 9L 1.7 MM 5L 3.7 ' 4.3	—	—	X18				—	—	X18	'																	
		TC	8.3	TC 5L 3.1 SW 9L 0.9 65L 4.3		X30	X50					X30	X50	'																	
	T1	KK	6.0	KK 5L 3.5 PL 9L 2.5	△41	△43	△53				△41	△43	△53	'																	
		KK	10.7	5NL 6.2 65L 4.5	X50	X62	X72				X50	X62	X72	'																	
		KK TOLL	3.8	9L 1.3 9L 2.5	29	49	87				29	49	87	'																	
		SR	10.7	5NL 5.2 65L 4.5	X47	X84	X155				X47	X84	X155	'																	
		BP	9.7	SR 65L 3.9 65L 4.3	X123	X183	X324				X123	X183	X324	'																	
		DTW	9.1	BP 65L 2.7 KK 65L 2.1 65L 4.3	—	X10	X42				—	X10	X42	'																	
		SS	7.8	PTW 5NL 2.9 ' 4.3	—	X66	X135				—	X66	X135	'																	
		KKTCST	9.0	SS 5L 2.6 KK 65L 2.1 ' 4.3	—	X10	X48				—	X10	X48	'																	
		KKOSS		5NL 65NL	16	32	64				16	32	64	'																	
				' '	3	3	3				3	3	3	'																	
	T5	TH	5.1	TW 9L 1.7 SW 9L 0.9 PL 9L 2.5	△31	△59	△67				△31	△57	△67	'																	
		TH	8.3	65L 3.1 9L 0.9 65L 4.3	X31	X42	X77				X31	X42	X77	'																	
		BC	9.9	BC 5NL 5.0 9L 1.5 9L 0.9 9L 2.5	—	—	X14				—	—	X14	'																	
		DK	10.7	DK 9NL 3.3 65L 3.1 65L 1.8 ' 2.5	—	—	X13				—	—	X13	'																	
		BKT	7.7	BKT 65L 2.8 9L 1.5 9L 0.9 ' 2.5	—	—	X10				—	—	X10	'																	
		CHW	8.6	5L 3.7 9L 1.5 9L 0.9 ' 2.5	—	—	X31				—	—	X31	'																	
	T6	PKN	3.4	PKN 65L 3.4	PKN	·28	·62	·92				·28	·69	·92	'																
		PKN	6.7	65NL 6.7	PKN		X17	X34					X17	X34	'																
		BN	9.2	BN 5NL 6.0 65L 3.2	BN	X29	X56	X66				X29	X36	X66	'																
		PKN	3.4	65L 3.4	DKN	△113	△149	△174				△115	△149	△174	'																
		CP	3.7	CP 5L 1.2 b 65NL 2.5	CP	X90	X112	X156				X90	X112	X156	'																
		PS	9.6	PS 65L 2.1 BN 65L 2.2 PKN 65NL 5.3	PS	X11	X39	X72				X11	X39	X72	'																
		SMP	8.9	SMP 9L 1.8 PS 65L 3.9 65L 3.2	SMP	X10	X14	X39				X10	X14	X39	'																
		DN-2	10.3	9L 3.6 65NL 0.7	DN-2	—	—	X36				—	—	X36	'																
		DN-1	7.2	DN 5L 4.0 ' 3.2	DN-1	—	X13	X61				—	X13	X61	'																
		PKNSP5	6.7	65NL 6.7	PKNSPS	X9	X14	X24				X9	X14	X24	'																
		PKNMISC		65NL	PKNMISC	5	5	5				5	5	5	'																
		CPTKB		CP 5NL b '	CP TRE	1	1	1				1	1	1	'																
	T4	IS	4.5	LS PCM 2.0 PY 9L 2.5	LS	△16	△44	△44				△16	△44	△44	'																
		DM	11.0	DM 9L 2.5 ' 2.0 9NL 6.5	DM	—	—	X21				—	—	X21	'																

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T 6	HM ~ PL



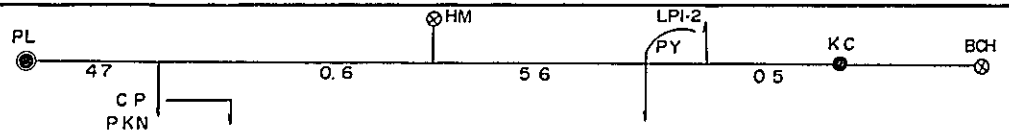
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T4	BK	78	BK 9L 24	PY PCM 20		65L 34	BK			X10	—	X14	X10	—	X14	HM													
		RID	72	RID 9L 27	LS 〃 20		9L 25	RID			—	—	X25	X—	—	X25														
EXSECTIVE CIRCUIT	T1	K K	107		KK SNL 62		PL 65L 45	X1	X3	X9				X1	X3	X9	HM													
	T3	P L	93				65L 93	1	X3	X9				X1	X3	X9	〃													
	T7	S W	73		SW 5L 30		65L 43	1	X3	X9				X1	X3	X9	〃													
					SUB	4 db		29	49	37	28	69	92	57	118	179														
						6 db		175	200	239	129	193	218	304	393	457														
					TOTAL	11 dd		564	110	2251	149	245	558	713	1355	2809														
						NL		19	35	67	6	6	6	25	41	73														
					GRAND	TOTAL		787	1394	2644	312	513	874	1099	1907	3518														

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T4	BCH ~ KC ~ HM



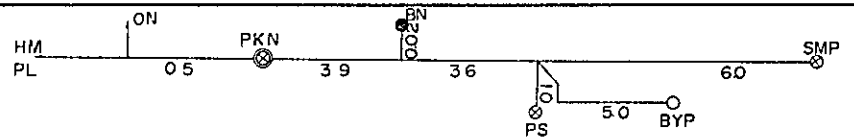
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T2	PY	2.0	PCM 2.0										PY			△36	△27	△30	△36	△27	△30	KC					
		PY	2.0	〃 2.0													X48	X43	X53	X48	X43	X53						
		PY	2.0	〃 2.0													▽42 △46	△32	△31	▽42 △46	△32	△31	▽42 △46	△32	△31	BCH		
		PY		9L													—	—	—	—	—	—	—	—	—	〃		
		LP-2	10.7	9NL 4.3 KC 9NL 6.4										LP-2			—	—	X21	—	—	X21	—	—	X21	〃		
		LP-2															—	X35	X61	—	X35	X61						
		HM	7.7	HM 6.5L 3.4 KC 9NL 4.3										HM			X35	X61		—	X35	X61	LP 2HM					
		LP-2	4.3	9NL 4.3										LP-2			X21	X44	X61	X21	X44	X61	KC					
		LP-1	8.2	9NL 3.9 LP2 9NL 4.3										LP-1			X13	X36	X58	X13	X36	X58	〃					
		LP-1															—	X35	X74	—	X35	X74						
		HM	8.8	HM 6.5L 3.4 KC 9L 1.5 LP-2 9NL 3.9										HM			X35	X74		—	X35	X74	LP-1HM					
	T1 -T4	BCH	3.9	KK 9L 1.9 PY PCM 2.0										KKTOLL			〃 9	〃 25	〃 40	〃 9	〃 25	〃 40	〃 9	〃 25	〃 40	BCH		
	T4	BCH	6.4	9NL 6.4																			—	X11	X30	〃		
	T2	LP-1	9.5	LPI 9L 1.6 LP-2 9L 1.5 KC 9NL 6.4										LP-1			—	—	X11	—	—	X11	KC —	—	X11	〃		
		IM	7.1	IM 5NL 5.1 PY PCM 2.0										IM			—	X10	X30	—	X10	X30	—	X10	X30	〃		
		BS	9.0	BS 9NL 2.4 b 6.5NL 4.6 〃 2.0										BS			—	—	X16	—	—	X16	—	—	X16	〃		
		BS	9.0	〃 2.4 〃 4.6 〃 2.0													X31	X32	X63	X31	X32	X63	KC					
		IM	7.1	IM 5NL 5.1 〃 2.0										IM			X31	X58	X86	X31	X58	X86	〃					
		NN	10.8	9NL 3.8 BS 9NL 5.5 〃 2.0										NN			—	—	X14	—	—	X14	〃					
	T6	HM	10.0	HM 6.5L 3.6 KC 9NL 6.4										HM			—	—	X27	—	—	X27	—	—	X27	BCH		
			7.2	HM 6.5NL 7.2													X27	X43	X72	X27	X43	X72	〃					
		PKN	5.1(4.0)	163 PKN 6.5L 3.2 HM 9L 1.9				DKN	163	187	188	163	187	188	163	187	188				163	187	188	〃					
		PKN	5.1	6.5L 3.2 〃 1.9				DKN	△40	△62	△63	△40	△62	△63	△40	△62	△63				△40	△62	△63	〃					
		PKN	6.6	6.5L 3.2 6.5L 3.4				DKN	—	X16	X23	—	X16	X23	—	X16	X23				—	X16	X23	〃					
		PKNSPS	6.6	〃 3.2 〃 3.4				PKNSPS	X9	X11	X15	X9	X11	X15	X9	X11	X15				X9	X11	X15	〃					
		PKNMISC		6.5NL 6.5NL				PKNMISC	5	5	5	5	5	5	5	5	5				5	5	5	〃					
		CP	6.4	CP 5L 0.7 b 6.5L 2.3 · 6.5L 3.4				CP	X78	X68	X74	X78	X68	X74	X78	X68	X74				X78	X68	X74	〃					
		ON-1	9.8	ON-2 9L 3.0 〃 3.4				ON-2	—	—	X27	—	—	X27	—	—	X27				—	—	X27	〃					
		ON-1	10.4	ON-1 5L 3.0 〃 3.4				ON-1	—	X14	X44	—	X14	X44	—	X14	X44				—	X14	X44	〃					
	T4	HMTKE		6.5NL				HMTKE							1	1	1				1	1	1	〃					
		PS	10.5	PS 6.5L 4.1 PKN 6.5L 3.0 · 6.5L 3.2				PS	—	—	X11	—	—	X11	—	—	X11				—	—	X11	〃					
		ON-1	12.5(10.)	ON-1 5L 4.0 PKN 6.5L 3.0 HM 9L 3.2 KC				ON-1	—	—	X10	—	—	X10	—	—	X10				—	—	X10	—	—	X10	BCH		
		LS	2.0	LS PCM — PY PCM 2.0										LS	△27	△41	△43	△27	△41	△43	KC								
		LS	2.0	〃 — 〃 2.0										LS	—	—	X12	—	—	X12	〃								
		NWW	5.9	NNW 9L 1.6 NWb 9L 2.3 〃 2.0										NWW	X10	—	X11	X10	—	X11	〃								
		DM	10.2	DM 9NL 6.2 PCM 2.0 〃 2.0										DM	—	—	X10	—	—	X10	〃								
		RID	9.1	RID 9NL 7.1 〃 — 〃 2.0										RID	—	X11	X31	—	X11	X31	〃								
	T1	KK	3.9	KK 9L 1.9 PY PCM 2.0										KK	△61	△58	△84	△61	△58	△84	〃								
		KK	9.0	KK 5L 3.5 PL 9L 2.1 HM 6.5L 3.4	X48	X24	X22				X48	X24	X22	X48	X24	X22				X48	X24	X22	〃					
		KK TOLL	3.0	KK 9L 1.9 PY PCM 2.0										KKTOLL	〃 47	〃 61	〃 89				〃 47	〃 61	〃 89	〃					
			9.0	KK 5L 3.5 PL 9L 2.1 HM 6.5L 3.4	X29	X36	X51				X29	X36	X51	X29	X36	X51				X29	X36	X51	〃					
		SR	9.3	BP SK 5L 5.1 9L 2.3 · 9L 1.9	—	—	X33				—	—	X33	—	—	X33				—	—	X33	〃					
		BP	10.8	BP 6.5L 2.7 6.5L 2.1 · 9L 4.1 〃 1.9	X22	X11	X36				X22	X11	X36	X22	X11	X36				X22	X11	X36	〃					
		PTW	8.6	PTW 5NL 2.9 9L 2.3 6.5L 3.4	—	X48	X77				—	X48	X77	—	X48	X77				—	X48	X77	〃					
		SS	10.1	SS 5L 2.6 5L 3.3 9L 2.3 9L 1.9	—	X27	X56				—	X27	X56	—	X27	X56				—	X27	X56	〃					

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T4	BCH ~ KC ~ HM



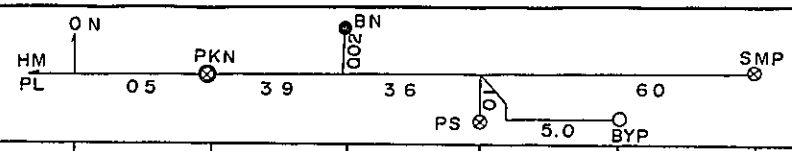
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCTUIT		LP-2		LP-2 9L 1.6 KC																								
		PKN	5.0	PKN 9L 1.7 HM 9L 1.7	PKN			△39	△53	△74	△39	△53	△74	△39	△53	△74	LP-2 △39	△53	△74	△39	△53	△74	LP-2~PKN					
		LP-2		LP-2 9L 1.6 KC																								
		PKN	8.0	PKN 65L 3.2 HM 65L 3.2	PKN			—	X14	X21	—	X14	X21	—	X14	X21	LP-2 —	X14	X21	—	X14	X21	~PKN					
		LP-2		LP-2 9L 1.6 KC																								
		CP	8.3	CP 5L 1.2 b 65L 2.3 HM 65L 3.2	CP			—	X56	X66	—	X56	X66	—	X56	X66	LP-2 —	X56	X66	—	X56	X66	~CD					
		LP-2		LP-2 9L 1.6 KC																								
		PS	8.9	PS 65L 4.1 PKN 9L 1.5 HM 9L 1.7	PS			—	—	X10	—	—	X10	—	—	X10	LP-2 —	—	X10	—	—	X10	~PS					
		LP-2		LP-2 9L 1.6 KC																								
		ON-2	9.6	ON-2 9L 3.4 PKN 65L 3.0 HM 65L 3.2	ON-2			—	—	X15	—	—	X15	—	—	X15	LP-2 —	—	X15	—	—	X15	~ON-2					
		LP-2		LP-2 9L 1.6 KC																								
		ON-1	11.8(11.0)	ON-1 5L 4.0 PKM 65L 3.0 HM 65L 3.2	ON-1			—	X10	X34	—	X10	X34	—	X10	X34	LP-2 —	X10	X34	—	X10	X34	~ON-1					
		PL	4.4	PL 9L 2.5 HM 9L 1.9	△35	△41	△26	△35	△41	△26	△35	△41	△26	△35	△41	△26				△35	△41	△26	KC					
	T3	PL	7.7	65L 4.3 65L 3.4	X28	X26	X68	X28	X26	X68	X28	X26	X68	X28	X26	X68				X28	X26	X68						
		MM	8.9	MM 9L 1.4 65L 4.1 〃 3.4	—	—	X21	—	—	X21	—	—	X21	—	—	X21				—	—	X21						
		ASD	7.6	ASD 5L 3.5 〃 4.1	—	X23	X45	—	X23	X45	—	X23	X45	—	X23	X45				—	X23	X45						
		SKV	7.2	SKV 5L 3.1 〃 4.1	—	X34	X47	—	X34	X47	—	X34	X47	—	X34	X47				—	X34	X47						
	T7	SW	5.3	SW 9L 1.1 9L 2.3 9L 1.9	△48	△53	△39	△48	△53	△39	△48	△53	△39	△48	△53	△39				△48	△53	△39						
		SW	8.6	9L 1.1 65L 4.1 65L 3.4	X39	X36	X84	X39	X36	X84	X39	X36	X84	X39	X36	X84				X39	X36	X84						
	T5	TH	6.3(6.0)	TH 9L 1.7 9L 0.9 9L 2.3 9L 1.9	△29	△40	△51	△29	△40	△51	△29	△40	△51	△29	△40	△51				△29	△41	△51						
		TH	9.1	65L 3.1 65L 1.8 29 〃 2.3 〃 1.9	X26	X25	X36	X26	X25	X36	X26	X25	X36	X26	X25	X36				X26	X25	X36						
		DK	8.8	DK 9L 3.9 L15 〃 1.8 〃 2.3 〃 1.9	—	—	X11	—	—	X11	—	—	X11	—	—	X11				—	—	X11						
EXSECTIVE CIRCUIT	T1	KK	11.0	KK 5L 3.5 PL 65L 4.1 HM 65L 3.4	X1	X3	X9				X1	X3	X9	X1	X3	X9				X1	X3	X9						
	T3	PL	7.7	〃 4.3 〃 3.4	X12	X23	X30				X12	X23	X30	X12	X23	X30				X12	X23	X30						
	T7	SW	9.5	SW 65L 2.0 〃 4.1 〃 3.4	X1	X3	X9				X1	X3	X9	X1	X3	X9				X1	X3	X9						
		SW		65NL 65NL 65NL	2	4	6				2	4	6	2	4	6				2	4	6						
				SUB 4 db				163	187	188	163	187	188	163	187	188	56	86	129	219	273	317	0	25	40			
				6 db	112	134	116	40	62	63	152	196	179	152	196	179	212	168	188	364	364	364	88	32	31			
				TOTAL 11 db	206	319	634	87	109	204	293	428	839	320	541	1046	154	304	612	461	509	1600		21	118			
				NL	21	29	43	5	5	5	26	34	48	27	35	49	1			41	71	107	1					
				GRAND TOTAL	339	482	793	295	363	460	634	845	1254	662	959	1462	423	558	929	1085	1517	2391	98	78	189			

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T6	SMP ~ PKN



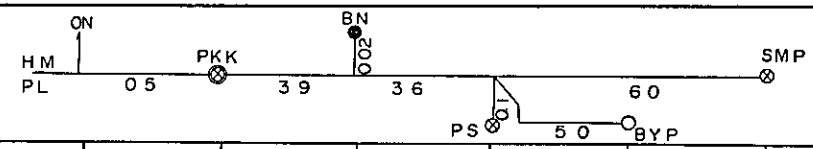
KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		PKN	2 0				PKN PCM 2.0			PKN	•143	•190	•806	•143	•190	•206				•143	•190	•206	SM				
		〃	2 0				〃 2 0			〃	△51	△61	△77	△51	△61	△77				△51	△61	△77	•				
		PKN	5 9			PKN 65L 4.1	PS 9L 1 8			PKN	—	X13	X20	—	X13	X20				—	X13	X20	•				
		PKN SPS	5 9			〃 4 1	〃 1 8			PKN SPS	X6	X7	X10	X6	X7	X10				X6	X7	X10	•				
		CP	8 1		CP 65NL 2 4	〃 3.9	〃 1 8	X24	X20	X22	X24	X20	X22	X24	X20	X22				X24	X20	X22	•				
	T6	MM	8.9		MM 65L 3 2	〃 3 9	〃 1 8	X10	X14	X26	X10	X14	X26	X10	X14	X26				X10	X14	X26	•				
		ON2	9 1		ON2 9L 4 4	〃 3.9	〃 1.8	—	—	X12	—	—	X12	—	—	X12				—	—	X12	•				
		ON1	9 7		ON1 5L 4 0	〃 3.9	〃 1 8	—	—	X17	—	—	X17	—	—	X17				—	—	X17	•				
		SN	9 3			BN 65NL 4 3	9NL 5 0						BN	X46	X36	X52				X46	X36	X52	〃				
		PS	5.0				9NL 5 0									PS				X31	X41	X59	•				
		PS TKE	5 0				〃 5 0									PS TKE				1	1	1	•				
		PKN MISC				65NL	9NL			PKN MISC	5	5	5	5	5	5				5	5	5	•				
	T4	LS	2 0			LS PCM	PKN PCM 2 0	△15	△17	△25	△15	△17	△25	△15	△17	△25				△15	△17	△25	•				
	T2	PY	2 0		PY	ASD PCM	PKN 〃 2 0	△30	△42	△51	△30	△42	△51	△30	△42	△51				△30	△42	△51	•				
		PY	7 9		PY PCM 2.0	65L 4	PS 9L 1.8	X10	—	—	X10	—	—	X10	—	—				X10	—	—	•				
		IM	10.2	IM 65NL 4.0	PY 9L 4 2	PKN PCM	2 0	—	—	X22	—	—	X22	—	—	X22				—	—	X22	•				
		KK	2 0	KK	PL	KK PCM	2 0	△37	△40	△45	△37	△40	△45	△37	△40	△45				△37	△40	△45	•				
	T1	KK	2.0			KK 〃	2 0	•33	•38	•56	•33	•38	•56	•33	•38	•56				•33	•38	•56	•				
		TOLL	10.4	KK 65L 2.3	PL 65L 4.2	PKN 9L 2.1	PS 9L 1 8	X20	X23	X33	X20	X23	X33	X20	X23	X33				X20	X23	X33	•				
		PTW	9 7	PTW 5L 1.7	65L 4 2	65L 3.9	9L 1 8	—	X12	X36	—	X12	X36	—	X12	X36				X—	X12	X36	•				
		KK TEST		65NL	65NL	9NL	9NL	10	12	20	10	12	20	10	12	20				10	12	20	•				
		KK OBS		65NL	65NL	9NL	9NL	3	3	3	3	3	3	3	3	3				3	3	3	•				
		PL	4 6		PL 9L 2.6	PCH	2.0	△36	△39	△18	△36	△39	△18	△36	△39	△18				△36	△39	△18	•				
	T3	PL	8 3		65L 4.4	65L 2 1	PS 9L 1 8	X20	—	X58	X20	—	X58	X20	—	X58				X20	—	X58	•				
		MM	8.9	MM 65L 2.5	CP 65L 4.4	PKN PCM 2.0	〃	—	—	X12	—	—	X12	—	—	X12				—	—	X12	•				
		ASD	8.9		ASD 65L 5 0	9L 2.1	PS 〃 1 8	—	X15	X37	—	X15	X37	—	X15	X37				—	X15	X37	•				
		SKV	7 8		SKV 5L 3 9	9L 2 1	〃 1 8	—	X24	X34	—	X24	X34	—	X24	X34				—	X24	X34	•				
		SW	5 5	SW 9L 1.1	PL 9L 2 4	PCM	2 0	△38	△37	△26	△38	△37	△26	△38	△37	△26				△38	△37	△26	•				
	T7	SW	8 4	SW 65L 2 0	PL 65L 4 4		PKN PCM 2 0	X33	—	X69	X33	—	X69	X33	—	X69				X33	—	X69	•				
		TC	9 3	TC 5L 3	SW 65L 1.8	9L 2 4	PCM	—	—	X13	—	—	X13	—	—	X13				—	—	X13	•				
	T5	TH	2 0		TH PCM —	PCM	2.0	△23	△26	△38	△23	△26	△38	△23	△26	△38				△23	△26	△38	•				
PRIVATE CIRCUIT	T1	KK	10 4	KK 65L 2.3	PL 65L 4 2	PKN 65L 3.9	PS 9L 1 8	X1	X3	X9	X1	X3	X9	X1	X3	X9				X1	X3	X9	•				
	T3	PL	10.1		65L 4 4	〃 3 9	〃 1.8	X1	X3	X9	X1	X3	X9	X1	X3	X9				X1	X3	X9	•				
		SW	9 9	SW 65L 2 0	9L 2 2	〃 3 9	〃 1.8	X1	X3	X9	X1	X3	X9	X1	X3	X9				X1	X3	X9	•				
	T7	SW		65NL	9NL	65NL	9NL	50	100	155	50	100	155	50	100	155				50	100	155	•				
						SUB TOTAL	• 4 db	38	38	56	176	228	262	176	228	262				176	228	262					
							△ 6 db	179	201	203	230	262	280	230	262	280				280	262	280					
							X11 db	120	117	418	126	137	448	172	197	500				203	214	559					
							NL	63	115	173	68	120	183	68	180	183				69	121	184					
						GRAND TOTAL		395	471	855	600	747	1173	646	783	1325				678	825	1285					

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T6	BYP ~ PKN



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)		'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		PKN	20	PKN	PCM 20		PKN		—	101	132	—	101	132	—	101	132	BYP											
		″	38		9L 38		″		—	Δ 44	Δ 47	—	Δ 44	Δ 47	—	Δ 44	Δ 47	″											
		PKN SPS	103		9NL 103		PKN SPS		—	X 5	X 6	—	X 5	X 6	—	X 5	X 6	″											
		BN	71		9NL 71								BN		—	—	X 12	″											
		PS	41		9NL 41								PS		—	X 12	X 25	″											
	T4	LS	20	LS	PCM —	PKN PCM 20			—	Δ 11	Δ 14	—	Δ 11	Δ 14	—	Δ 11	Δ 14	″											
	T2	PY	20	PY	″ —	″ 20			—	Δ 24	Δ 30	—	Δ 24	Δ 30	—	Δ 24	Δ 30	″											
		KK	20	KK	″ —	″ 20			—	Δ 23	Δ 29	—	Δ 23	Δ 29	—	Δ 23	Δ 29	″											
		KK	20		″ —	″ 20			—	• 21	• 27	—	• 21	• 27	—	• 21	• 27	″											
		TOLL	83	KK 65L 23	PL 9L 24	9L 36			—	X 14	X 17	—	X 14	X 17	—	X 14	X 17	″											
		KK TEST			9NL	9NL			—	6	8	—	6	8	—	6	8	″											
		KK·OBS			″	″			—	3	3	—	3	3	—	3	3	″											
	T3	PL	46		PL 9L 26	PCM 20			—	Δ 26	Δ 36	—	Δ 26	Δ 36	—	Δ 26	Δ 36	″											
	T7	SW	55	SW 9L 11	9L 24	″ 30			—	Δ 21	Δ 26	—	Δ 21	Δ 26	—	Δ 21	Δ 26	″											
	T5	TH	20		TH PCM —	″ 20			—	Δ 16	Δ 20	—	Δ 16	Δ 20	—	Δ 16	Δ 20	″											
	T6	PKNMISC				9NL			—	5	5	—	5	5	—	5	5	″											
		PS TKE			PS	9NL							PS TKE		—	1	1	″											
PRIVATE CIRCUIT	T1	KK	83	KK 65L 23	PL 9L 24	PKN 9L 36			—	X 2	X 9	—	X 2	X 9	—	X 2	X 9	—	X 2	X 9	BYP								
	T3	PL	80		65L 44	9L 36			—	X 2	X 9	—	X 2	X 9	—	X 2	X 9	—	X 2	X 9	″								
	T7	SW	100	SW 65L 30	65L 44	9L 36			—	X 2	X 9	—	X 2	X 9	—	X 2	X 9	—	X 2	X 9	″								
					SUB TOTAL	• 4 db			21		27	122		159	122		159	122		159									
						Δ 6 db			121		155	165		202	165		202	165		202									
						X 11 db			20		44	25		50	25		62	37		87									
						NL			9		11	14		16	14		16	14		16									
					GRAND TOTAL				171		237	326		427	326		439	338		464									

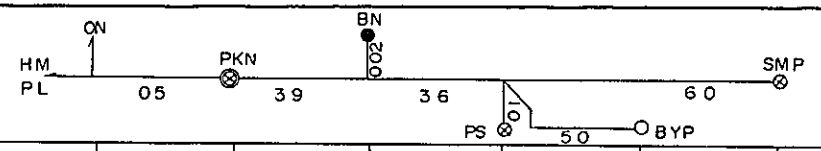
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T6	PS ~ PKN



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T6	PKN	34			PKN 65L 22	BN 9L 12				*179	*207	*242	*179	*237	*242	PS														
		PKN	43			65L 22	65L 21				Δ31	Δ57	Δ66	Δ31	Δ57	Δ66															
		PKN	89			65NL 40	65NL 40				—	X19	X30	—	X19	X30															
		PKN SPS	89			65NL 46	65NL 43				X6	X10	X14	X8	X10	X14															
		PKNMISC				65NL	65NL				5	5	5	5	5	5															
		CP	67		CP 65NL 24	65L 22	65L 21	X52	X62	X74	X52	X62	X74	X52	X62	X74															
		BN	43				65NL 43							X48	X38	X83															
		KC	105	KC 65L 34	HM 65L 30	65L 20	65L 21	—	—	X11	—	—	X11	—	—	X11															
		ON2	75		ON2 9L 34	65L 20	65L 21	—	—	X18	—	—	X18	—	—	X18															
		ON1	81		ON1 5L 40	65L 20	65L 21	—	X14	X42	—	X14	X42	—	X14	X42															
		HM	96		HM 65NL 53	65L 22	65L 21	X11	X39	X72	X11	X39	X72	X11	X39	X72															
		BM TKS	18				65NL 48				1	1	1																		
	T4	LS	54		LS PCM 20	65L 22	9L 12	Δ15	Δ24	Δ35	Δ15	Δ24	Δ35	Δ15	Δ24	Δ35															
		PY	54		PY PCM 20	PKN 65L 22	BN 9L 12	Δ30	Δ34	Δ29	Δ30	Δ34	Δ29	Δ30	Δ34	Δ29															
		PY	81		9L 40	65L 20	65L 21	X10	X12	X11	X10	X12	X11	X10	X12	X11															
	T2	BS	85	BS 9L 24	9L 38	9L 11	9L 12	—	—	X32	—	—	X32	—	—	X32															
		LP2	89	LP2 9L 16	KC 9L 17	HM 9L 15	PKN 65L 41	—	—	X10	—	—	X10	—	—	X10															
		LP1	90	LP1 65L 29	PY 9L 38	PKN 9L 11	BN 9L 12	—	X22	X40	—	X22	X40	—	X22	X40		PS													
		IM	103	IM 65NL 40	9L 40	9L 11	9L 12	—	X22	X34	—	X22	X34	—	X22	X34															
		KK	54		KK PCM 20	65L 22	9L 12	Δ37	Δ49	Δ60	Δ37	Δ49	Δ60	Δ37	Δ49	Δ60															
		KK	37(40)	9L 1.0	PL 9L 24	9L 11	9L 12	*33	*57	*84	*33	*57	*84	*33	*57	*84															
		TOLL	88	65L 23	33 9L 24	65L 20	65L 21	X20	X34	X49	X20	X34	X49	X20	X34	X49															
	T1	KK TEST		65NL	9NL	65NL	65NL	10	20	32	10	20	32	10	20	32															
		KK OBS		65NL	9NL	65NL	65NL	3	3	3	3	3	3	3	3	3															
		BR	99	SR 65L 34	PL 9L 24	PKN 65L 41		—	—	39	—	—	39	—	—	39															
		PTW	100	PTW 5L 17	65L 24	65L 41		—	X19	X30	—	X19	X30	—	X19	X30															
		SS	83	SS 65L 17	65L 21	9L 22	9L 23	—	—	X25	—	—	X25	—	—	X25															
		PL	47		PL 9L 24	PKN 9L 11	BN 9L 12	Δ36	Δ48	Δ32	Δ36	Δ48	Δ32	Δ36	Δ48	Δ32															
	T3	PL	85		65L 44	65L 20	65L 21	—	X22	X80	—	X22	X80	—	X22	X80															
		MM	90	MM 65L 25	65L 42	9L 11	65L 12	—	—	X27	—	—	X27	—	—	X27															
		ASD	91	ASD 65L 50	65L 20	65L 21		—	X31	X51	—	X31	X51	—	X31	X51															
		SKV	111	SKV 5NL 36	CP 5NL 30	65L 20	65L 21	—	X40	X59	—	X40	X59	—	X40	X59															
		SW	58	SW 9L 24	PL 9L 24	9L 11	9L 12	Δ38	Δ27	Δ26	Δ38	Δ27	Δ26	Δ38	Δ27	Δ26															
	T7	SW	85	65L 20	65L 42	9L 11	9L 12	X30	X75	X108	X30	X75	X108	X30	X75	X108															
		TK	81	TK 9L 16	SW 65L 18	PL 9L 24	PKN 9L 23	—	—	X10	—	—	X10	—	—	X10															
		TC	87	TC 5L 31	9L 09	9L 24	9L 23	—	X14	X31	—	X14	X31	—	X14	X31															
	T5	TH	54		TH PCM 20	PKN 65L 22	BN 9L 12	Δ23	Δ37	Δ44	Δ23	Δ37	Δ44	Δ23	Δ37	Δ44															
		TH	105	65L 31	SW 9L 09	PL 9L 24	PKN 9L 23	—	—	X23	—	—	X23	—	—	X23															
PRIVATE CIRCUIT	T1	KK	100		KK 65L 23	65L 42	65L 41	X1	X3	X9	X1	X3	X9	X1	X3	X9															
	T3	PL	85		PL 65L 44	PKN 65L 20	BN 65L 21	X2	X3	X5	X2	X3	X5	X2	X3	X5															
	T7	SW		SW 65NL	PL 65NL	PKN 65NL	BN 65NL	5	9	16	5	9	16	5	9	16															
						SUB TOTAL	• 4 db	33	57	84	212	292	326	212	294	326															
							Δ 6 db	179	219	226	210	276	292	210	276	292															
							X 11db	126	412	856	132	441	934	180	499	1017															
							NL	18	32	85	23	37	56	24	38	57															
						GROND TOTAL		356	720	1251	577	1048	1608	626	1107	1592															

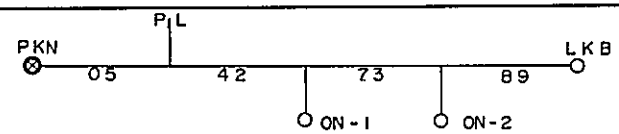
(BN)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T6	BN ~ PKN



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (db)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		PKN	3.6				PKN 5L 36				*181	*232	*236	BN																	
		PKN	3.6				5L 36				Δ37	Δ53	Δ71																		
		PKN	5.9				5NL 59				X11	X16	X25																		
		PKN SPS	5.9				5NL 59				X10	X10	X14																		
	T6	PKKMISO					5NL				5	5	5																		
		PKKTKE					5NL				1	1	1																		
		CP	8.3			CP 65NL 2.4	5NL 59	X94	X62	X72	X94	X62	X72																		
		ON2	9.5			ON2 9L 3.6	5NL 59	—	—	X15	—	—	X15																		
		ONI	7.4			ONI 5L 4.0	5L 34	—	X12	X38	—	X12	X38																		
		HM	9.3			HM 65L 3.4	5NL 59	X29	X36	X56	X29	X36	X56																		
	T4	LS	5.6			LS PCM 2.0	5L 5.6	Δ23	Δ24	Δ25	Δ23	Δ24	Δ25																		
	T2	PY	5.6			PY PCM 2.0	5L 36	Δ53	Δ62	Δ53	Δ53	Δ62	Δ53																		
		PY	7.4			PY 9L 4.0	5L 34	X28	—	—	X28	—	—																		
		BS	8.4		BS 9L 2.4	9L 3.8	65L 22	—	—	X26	—	—	X26																		
		IM	10.2		IM 65NL 4.0	9L 4.0	65L 22	—	—	X29	—	—	X29																		
		LPI	8.9		65L 2.9	9L 3.8	65L 22	—	—	X34	—	—	X34																		
	T1	KK	5.6			KK PCM 2.0	5L 3.6	Δ63	Δ43	Δ57	Δ63	Δ43	Δ57																		
		KK	8.7		KK 65L 2.4	PL 65L 4.2	65L 2.2	X22	—	—	X22	—	—																		
		KK	3.5			KK PCM 2.0	9L 1.5	*57	*57	*84	*57	*57	*84																		
		TOLL	8.7		65L 2.3	PL 65L 4.2	65L 22	X34	X34	X49	X34	X34	X49																		
		KK.TEST			65NL	65NL	65NL	20	20	32	20	20	32		BN																
		KK OBS			65NL	65NL	65NL	3	3	3	3	3	3																		
		PTW	9.3	PTW 5L 1.7		65L 4.2	5L 34	—	X36	X58	—	X36	X58																		
		SS	8.2	SS 65L 1.2	KK 65L 2.1	9L 2.2	65L 22	—	—	X23	—	—	X23																		
		SR	9.0		SR 65L 3.4	9L 2.2	5L 34	X30	—	X33	X30	—	X33																		
	T3	PL	5.7			PL 65L 4.4	PKN 9L 1.3	Δ20	Δ17	Δ22	Δ20	Δ17	Δ22																		
		PL	7.8			65L 4.4	5L 34	X70	X50	X72	X70	X50	X72																		
		MM	8.9		MM 65L 2.5	PL 65L 4.2	65L 22	X28	X11	X34	X28	X11	X34																		
		ASD	8.4			ASD 65L 5.0	5L 34	X10	X38	X58	X10	X38	X58																		
		SKV	7.2		SKV 5L 2.2	CP 5L 1.6	5L 34	—	X37	X54	—	X37	X54																		
	T7	SW	5.5		SW 65L 2.0	PL 9L 2.2	9L 1.3	Δ30	Δ55	Δ41	Δ30	Δ55	Δ41																		
		SW	8.4		65L 2.0	65L 4.2	65L 22	X93	X36	X93	X93	X36	X93																		
		TC	8.4	5L 3.1	SW 9L 0.9	9L 2.2	65L 22	—	X12	X17	—	X12	X17																		
	T5	TH	5.6			TH PCM 2.0	5L 3.6	Δ27	Δ37	Δ44	Δ27	Δ37	Δ44																		
		TH	10.3	TH 65L 3.1	SW 65L 1.8	PL 9L 2.2	5L 3.4	X12	—	X13	X12	—	X13																		
PRIVATE CIRCUIT	T1	KK	9.9		KK 65L 2.3	PL 65L 4.2	PKN 5L 3.4	X3	X6	X10	X3	X6	X10																		
		KK			65NL	65NL	5NL	X2	X2	X5	X2	X2	X5																		
		SR		SR 5NL		PL 65NL	5NL	8	13	25	8	13	25																		
	T3	PL	7.8			PL 5L 4.4	5L 3.4	X2	X3	X5	X2	X3	X5																		
	T7	SW	9.6		SW 65L 2.0	65L 4.2	5L 3.4	X1	X3	X9	X1	X3	X9																		
		SW			65NL	65NL	5NL	2	4	6	2	4	6																		
						SUB	* 4 db	57	57	84	238	289	320																		
						TOTAL	Δ 6 db	216	243	242	253	296	313																		
							X 11 db	456	376	808	477	402	847																		
							NL	35	42	71	41	42	77																		
						GRAND	TOTAL	764	718	1205	1009	1035	1557																		

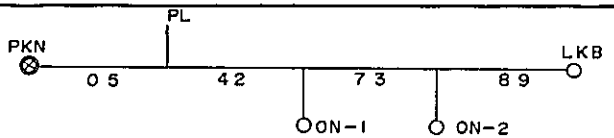
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T6	LKB ~ ON-2



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)				'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT		PKN	2.0			PKN PCM 2 0		—	• 92	• 93	—	• 92	• 93	—	• 92	• 93	—	• 92	• 93	LKB											
		PKN	6 0			9L 6 0		—	Δ 44	Δ 43	—	Δ 44	Δ 43	—	Δ 44	Δ 43	—	Δ 44	Δ 43	•											
		PKN SPS	6.0			9L 6 0		—	X 4	X 4	—	X 4	X 4	—	X 4	X 4	—	X 4	X 4	•											
		KK	2 0		KK PCM —	PKN PCM 2 0		—	Δ 39	Δ 38	—	Δ 39	Δ 38	—	Δ 39	Δ 38	—	Δ 39	Δ 38	•											
	T1	KK	9 3	KK 9L 1.3	PL ·9L 2 2	9L 5.8		—	X 13	X 13	—	X 13	X 13	—	X 13	X 13	—	X 13	X 13	•											
		KK TOLL	2 0		KK PCM —	PCM 2 0		—	• 19	• 19	—	• 19	• 19	—	• 19	• 19	—	• 19	• 19	•											
		KK TEST		·9NL	PL 9NL	·9NL 17 1		—	6	6	—	6	6	—	6	6	—	6	6	•											
		KK.DBS		·9NL	•	9NL 17 1		—	3	3	—	3	3	—	3	3	—	3	3	•											
	T2	PY	2 0		PY PCM —	PCM 2 0		—	Δ 23	Δ 23	—	Δ 23	Δ 23	—	Δ 23	Δ 23	—	Δ 23	Δ 23	•											
	T3	PL	4 6		PL 9L 2.6	• 2 0		—	Δ 42	Δ 45	—	Δ 42	Δ 45	—	Δ 42	Δ 45	—	Δ 42	Δ 45	•											
	T4	LS	2 0		LS PCM —	• 2 0		—	Δ 13	Δ 13	—	Δ 13	Δ 13	—	Δ 13	Δ 13	—	Δ 13	Δ 13	•											
	T5	TH	2 0		TH • —	• 2.0		—	Δ 21	Δ 21	—	Δ 21	Δ 21	—	Δ 21	Δ 21	—	Δ 21	Δ 21	•											
	T7	SW	64(60)	SW 65L 2 0	PL ·9L 2 0	• 2.0		—	Δ 35	Δ 33	—	Δ 35	Δ 33	—	Δ 35	Δ 33	—	Δ 35	Δ 33	•											
		PKNMISC				9NL 17 1		—	5	5	—	5	5	—	5	5	—	5	5	•											
	T6	ON2 TKE				9NL 17 1									ON2 TKE		—	1	1	•											
EXSECTION CIRCUIT	T1	KK	10.3	KK 65L 2.3	PL 9L 2 2	PKN 9L 5.8		—	X 2	X 8	—	X 2	X 8	—	X 2	X 8	—	X 2	X 8	•											
	T3	KK	10 2		·65L 4 4	9L 5 8		—	X 2	X 8	—	X 2	X 8	—	X 2	X 8	—	X 2	X 8	•											
	T7	SW	10 0	SW 65L 2 0	9L 2 2	·9L 5 8		—	X 2	X 8	—	X 2	X 8	—	X 2	X 8	—	X 2	X 8	•											
					SUB TOTAL	• 4 db		111	112		111	112		111	112		111	112													
						Δ 6 db		217	216		217	216		217	216		217	216													
						X 11 db		23	41		23	41		23	41		23	41													
						NL		14	14		14	14		14	14		14	14													
					GRAND TOTAL			365	383		365	383		365	383		366	384													

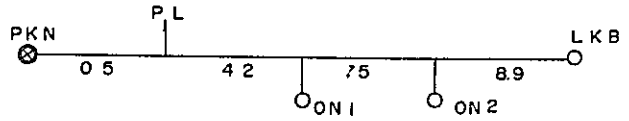
(ON − 2)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T6	ON − 2 ~ ON − 1



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	
GENERAL CIRCUIT	T6	PKN	2.0	PKN PCM 2.0	—	*182	*250	—	*182	*258	—	*182	*258	ON2															
		〃		9L 3.6	—	△82	△65	—	△82	△65	—	△82	△65	〃															
		PKN	9.8	9NL 9.8	—	—	X13	—	—	X13	—	—	X13	〃															
		PKN SPS	9.8	9NL 9.8	—	X7	X13	—	X7	X13	—	X7	X13	〃															
		CP	6.0	CP 65NL 2.4 PKN 9L 3.6	—	—	X30	—	—	X30	—	—	X30	〃															
		BN	9.5	BN 5NL 5.9 9L 3.6	—	—	X15	—	—	X15	—	—	X15	〃															
		VC	9.8	KC 65L 3.4 HM 65L 3.0 9L 3.4	—	—	X27	—	—	X27	—	—	X27	〃															
		PS	7.5	PS 65L 2.1 BN 65L 2.0 9L 3.4	—	—	X18	—	—	X18	—	—	X18	〃															
		SMP	9.1	SMP 9L 1.8 BN 65L 3.9 9L 3.4	—	—	X12	—	—	X12	—	—	X12	〃															
		HM	10.3	HM 65NL 6.7 9L 3.6	—	—	X36	—	—	X36	—	—	X36	〃															
		PKN OBS		9NL	—	3	3	—	3	3	—	3	3	〃															
		PKN MISC		〃	—	5	5	—	5	5	—	5	5	〃															
		ON1 TKE		ON−1 〃					ON1 TKE		—	1	1	〃															
		ON−1	6.0	ON−1 9NL 6.0							—	—	32	〃															
	T1	KK	2.0	PKN PCM 2.0	—	△12	△40	—	△12	△40	—	△12	△40	〃															
		KK	7.9	KK 65L 2.3 PL 9L 2.2 9L 3.4	—	X22	X44	—	X22	X44	—	X22	X44	〃															
		TOLL	2.0	PCM 2.0	—	*35	*75	—	*35	*75	—	*35	*75	〃															
		KK TEST		KK 65NL PL 65L 9NL	—	12	28	—	12	28	—	12	28	〃															
		SR	9.0	SR 65L 3.4 9L 2.2 9L 3.4	—	X39	X123	—	X39	X123	—	X39	X123	〃	ON−2														
		BP	9.1	BP 65L 2.6 KK 65L 2.1 9L 2.4 PCM 2.0	—	—	X10	—	—	X10	—	—	X10	〃															
		PTW	10.7	5NL 2.0 65L 4.4 9L 3.4	—	X11	X48	—	X11	X48	—	X11	X48	〃															
		SS	9.1	SS 5L 2.6 KK 65L 2.1 9L 2.4 PCM 2.0	—	—	X14	—	—	X14	—	—	X14	〃															
	T2	PY	2.0	PY PCM — 〃 2.0	—	△41	△39	—	△41	△39	—	△41	△39	〃															
		BS	10.0	9NL 4.4 〃 2.0 9L 3.6	—	—	X10	—	—	X10	—	—	X10	〃															
		IM	10.7	5NL 5.1 〃 2.0 9L 3.0	—	—	X16	—	—	X16	—	—	X16	〃															
		LP2	11.2	LP2 9L 1.6 KC 9L 3.2 HM 65L 3.0 9L 3.4	—	—	X15	—	—	X15	—	—	X15	〃															
		LP1	8.7	LP1 65NL 3.1 PY PCM 2.0 9L 3.6	—	—	X26	—	—	X26	—	—	X26	〃															
	T3	PL	4.6	PL 9L 2.6 PCM 2.0	—	△19	△31	—	△19	△31	—	△19	△31	〃															
		PL	7.8	65L 4.4 9L 3.4	—	X28	X98	—	X28	X98	—	X28	X98	〃															
		MM	9.0	MM 9L 1.4 65L 4.2 9L 3.4	—	X12	X47	—	X12	X47	—	X12	X47	〃															
		ASD	8.2	ASD 65L 4.8 9L 3.4	—	X16	X56	—	X16	X56	—	X16	X56	〃															
		SKV	10.5	SKV 5NL 3.0 CP 5NL 3.0 9L 3.6	—	X17	X54	—	X17	X54	—	X17	X54	〃															
	T4	LS	2.0	LS PCM — PCM 2.0	—	△20	△42	—	△20	△42	—	△20	△42	〃															
	T5	TH	2.0	TH 〃 — 〃 2.0	—	△36	△60	—	△36	△60	—	△36	△60	〃															
		TH	5.6	〃 2.0 9L 3.6	—	—	X19	—	—	X19	—	—	X19	〃															
	T7	SW	6.2	SW 65L 2.0 PL 9L 2.2 PCM 2.0	—	△25	△34	—	△25	△34	—	△25	△34	〃															
		SW	8.8	65L 2.0 65L 4.4 PCM 2.0	—	X45	X99	—	X45	X99	—	X45	X99	〃															
		TC	9.3	TC 5L 3.1 SW 65L 1.8 2.0 PCM 2.0	—	—	X11	—	—	X11	—	—	X11	〃															
EXSECTIVE CIRCUIT	T1	KK	9.9	KK 65L 2.3 PL 65L 4.2 PKN 9L 3.4	—	X3	X9	—	X3	X9	—	X3	X9	ON2															
	T3	PL	7.3	PL 65L 4.4 9L 3.4	—	X3	X9	—	X3	X9	—	X3	X9	〃															
	T7	SW	9.6	65L 2.0 65L 4.2 9L 3.4	—	X3	X9	—	X3	X9	—	X3	X9	〃															
				* 4Nb	2.17	3.32		2.17	3.32		2.17	3.32																
				△ 6db	2.55	3.11		2.55	3.11		2.55	3.11																
				X 11db	2.06	8.91		2.06	8.91		2.06	8.91																
				NL	20	36		20	36		20	36																
				GRAND TOTAL	6.98	15.71		6.98	15.71		6.99	16.04																

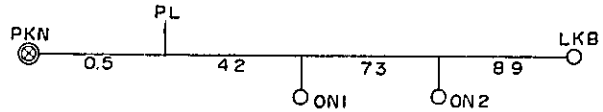
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T6	ON 1 ~ PKN



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)					'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T6	PKN	2.8					65L 2.8	—	233	258	—	233	258	ON1																	
		PKN	4.2					5L 4.8	—	46	67	—	46	67																		
		PKN	7.6					5NL 7.1	—	—	16	—	—	16																		
		PKN.SPS	7.1					5NL 7.1	—	9	17	—	9	17																		
		PKNMISC	7.0					5NL 7.5	—	5	5	—	5	5																		
		PKN TKE	7.5					5NL 7.5	—	1	1	—	1	1																		
		CP	6.6				CP 65NL 2.4	PKN 5L 4.2	—	28	80	—	28	80																		
		BN	7.4				BN 5L 5.4	5L 4.0	—	18	38	—	12	58																		
		KC	10.4		KC 65L 3.4		HM 65L 3.0	5L 4.0	—	14	44	—	14	44																		
		PS	8.1				PS 65L 4.1	5L 4.0	—	14	42	—	14	42																		
		SMP	9.7		SMP 9L 1.8		PS 65L 3.9	5L 4.0	—	—	17	—	—	17																		
		HM	7.2				HM 65L 3.2	PKN 5L 4.0	—	13	61	—	13	61																		
	T1	KK	4.8				KK PCM 2.0	65L 2.8	—	51	69	—	51	69																		
		KK TOLL	10.5		KK 65L 2.3		PL 65L 4.2	5L 4.0	—	29	59	—	89	59																		
		KK TEST	6.1(4.0)		9L 1.3		PL 9L 2.2	65L 2.6	—	47	102	—	47	102																		
		KK OBS			65NL		65NL	5NL 7.3	—	16	40	—	16	40																		
		SR	8.2	SR	65NL		65NL	5NL 7.3	—	3	3	—	3	3																		
		BP	8.5	BP 65L 2.6	65L 3.4		9L 2.2	65L 2.6	—	42	156	—	42	156																		
		PTW	8.5		9L 2.6		9L 1.1	65L 2.6	—	—	10	—	—	10																		
		SS	8.5	SS 65L 2.6	PTW 5L 1.7		PL 65L 4.2	65L 2.6	—	24	62	—	24	62																		
		PY	4.8		PK 9L 1.1		9L 2.2	65L 2.6	—	—	15	—	—	15	ON1																	
		PY	8.0				PY PCM 2.0	65L 2.8	—	48	45	—	48	45																		
	T2	BS	8.6				9L 4.0	5L 4.0	—	—	10	—	—	10																		
		IM	10.4		BS 9L 2.4		9L 3.8	65L 2.4	—	—	17	—	—	17																		
		LP2	11.8 (11.0)	LP2 5L 4.0	IM 65NL 4.0		9L 4.0	65L 2.4	—	—	18	—	—	18																		
		LP1	9.3		PK 65L 3.0		HM 65L 3.2	9L 1.6	—	10	34	—	10	34																		
		PL	5.0		LP1 65L 3.1		PY PCM 2.0	5L 4.2	—	—	32	—	—	32																		
	T3	PL	8.4				PL 5L 2.4	65L 2.6	—	24	39	—	24	39																		
		MM	8.2		MM 9L 1.4		65L 4.4	5L 4.0	—	40	148	—	40	148																		
		ASD	9.0				CP 65L 4.2	65L 2.6	—	17	73	—	17	73																		
	-	SKV	11.0		SKV 5NL 3.6		ASD 65L 5.0	5L 4.0	—	19	67	—	19	67																		
		LS	4.8				CP 5NL 3.0	5L 4.2	—	82	37	—	37	82																		
	T4	BCH	11.0 (12.5)	BCH 9L 2.3	KC 9L 3.2		LS PCM 2.0	65L 2.8	—	26	42	—	26	42																		
		RID	8.7		RID 9L 2.7		HM 65L 3.0	5L 4.0	—	—	10	—	—	10																		
		TH	4.8				LS PCM 2.0	5L 4.0	—	—	10	—	—	10																		
	T5	TH	6.2				TH PCM 2.0	PKN 65L 2.8	—	34	45	—	34	45																		
		BC	11.2		BC 5NL 5.0		PCM 2.0	5L 4.2	—	15	34	—	15	34																		
		DK	9.5		DK 5NL 3.3		TH PCM 2.0	5L 4.2	—	—	11	—	—	11																		
		CHW	9.9		CHW 5L 3.7		2.0	5L 4.2	—	—	11	—	—	11																		
		SW	16.0 (5.5)		SW 9L 1.1		PL 9L 2.8	65L 2.6	—	—	15	—	—	15																		
	T7	SW	8.8		65L 3.0		65L 4.2	65L 2.6	—	38	56	—	38	56																		
		TC	8.8	TC 5L 3.1	9L 0.9		9L 2.2	65L 2.6	—	54	159	—	54	159																		
									—	—	12	—	—	12																		

(ONI)

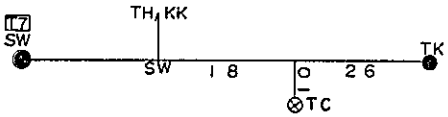
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T6	ONI ~ PKN



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)			'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d·b)				LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
EXSCITIVE CIRCUIT	T1	KK	10 5	KK 65L 23	PL 65L 42	PKN 5L 40	—	X3	X9	—	X3	X9	ONI																
	T3	PL	10 7		PL 5L 67	5L 40	—	X3	X9	—	X3	X9	•																
		SW	10 2	SW 65L 20	65L 42	5L 40	—	X3	X9	—	X3	X9	•	ONI															
	T7	SW		65NL	65NL	5NL 40	—	4	6	—	4	6	•																

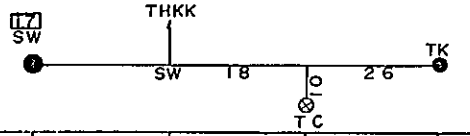
SUB TOTAL	• 4 db	280 356	280 356	
	△ 6 db	267 361	267 361	
	X 11 db	586 1397	586 1397	
	NL	29 55	29 55	
GRAND TOTAL		962 2169	962 2169	

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T7	SW ~ TC ~ TK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d, b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T1	SR	8.4	SR 5L 4.0 SW 5L 4.4	—	X 30	X 45	—	X 30	X 45	—	X 30	X 45	TK																	
		PTW	9.3	PTW 5NL 4.7 5L 4.6	—	X 30	X 49	—	X 30	X 49	—	X 30	X 49	"																	
		KK	5.3	KK 9L 1.7 9L 1.6	△32	△ 46	△ 61	△32	△ 46	△ 61	△32	△ 46	△ 61	"																	
		KK TOLL	11.0	65NL 5.4 5L 4.6	X14	X 26	X 36	X14	X 26	X 36	X14	X 26	X 36	"																	
			3.3	9L 1.7 9L 1.6	• 22	• 42	• 61	• 22	• 42	• 61	• 22	• 42	• 61	"																	
		KK TEST		65NL 5NL	6	14	22	6	14	22	6	14	22	"																	
		KK OBS		"	3	3	3	3	3	3	3	3	3	"																	
	T2	LPI	11.0	LP 65L 2.9 PY 5L 3.8 SW 5NL 4.3	—	—	X 11	—	—	X 11	—	—	X 11	"																	
		PY	5.4	PY 65L 3.8 SW 9L 1.6	△24	△ 41	△ 58	△24	△ 41	△ 58	△24	△ 41	△ 58	"																	
	T3	PL	9.9	PL 5NL 5.3 SW 5L 4.6	—	X 20	X 60	—	X 20	X 60	—	X 20	X 60	"																	
		MM	8.8	MM 5NL 4.5 SW 9NL 4.3	X10	X 23	X 41	X10	X 23	X 41	X10	X 23	X 41	"																	
		ASD	10.6	ASD 5L 3.5 PL 5L 3.0 SW 9NL 4.3	—	X 17	X 37	—	X 17	X 37	—	X 17	X 37	"																	
		SKV	8.2	SKV 65L 2.0 PL 65L 1.8 SW 5L 4.4	—	X 15	X 32	—	X 15	X 32	—	X 15	X 32	"																	
		PL	4.6	PL 5L 3.0 SW 9L 1.6	△17	△ 33	△ 20	△17	△ 33	△ 20	△17	△ 33	△ 20	"																	
	T4	LS	4.1	LS PCM 2.0 SW 9L 2.1	△ 9	△ 16	△ 23	△ 9	△ 16	△ 23	△ 9	△ 16	△ 23	"																	
	T5	TH	9.1	TH 5L 4.7 5L 4.4	X23	X 36	X 53	X23	X 36	X 53	X23	X 36	X 53	"	TK																
		DK	10.8	DK 9NL 3.3 TH 65L 3.1 SW 5L 4.4	—	—	X 10	—	—	X 10	—	—	X 10	"																	
		CHW	8.3	CHW 5L 3.8 65L 2.9 9L 1.6	—	—	X 15	—	—	X 15	—	—	X 15	"																	
		TH	4.7	TH 65L 3.1 9L 1.6	△17	△ 33	△ 42	△17	△ 33	△ 42	△17	△ 33	△ 42	"																	
	T6	CP	7.7	CP 65L 3.3 PL 5L 2.0 SW 9L 1.6	—	X 20	X 22	—	X 20	X 22	—	X 20	X 22	"																	
		PS	8.1	PS 9L 2.3 PKN 9L 2.4 PL 65L 1.8 9L 1.6	—	—	X 10	—	—	X 10	—	—	X 10	"																	
		HM	8.5	HM 5L 2.3 PL 65L 1.8 5L 4.4	—	—	X 29	—	—	X 29	—	—	X 29	"																	
		PKN	5.8	PKN 9L 2.4 65L 1.8 9L 1.6	X39	X 57	X 64	X39	X 57	X 64	X39	X 57	X 64																		
	T7	SW	7.8	5NL 7.8	X66	X 99	X 141	X66	X 99	X 141	X66	X 99	X 141																		
		SW SPS	7.8	5NL 7.8	X 5	X 8	X 11	X 5	X 8	X 11	X 5	X 8	X 11	"																	
		TC	9.7	TC 5NL 5.1 SW 5L 4.6	X32	X111	X 153	X32	X111	X 153	X32	X111	X 153	"																	
		SW	1.8	9L 1.8	• 116	• 161	• 209	• 116	• 161	• 209	• 116	• 161	• 209	"																	
		SW	4.3	9NL 4.3	△16	△ 23	△ 30	△16	△ 23	△ 30	△16	△ 23	△ 30	"																	
		SWMISC	7.8	5NL 7.8	6	6	6	6	6	6	6	6	6	"																	
EXECTIVE CIRCUIT	T1	SR		SR 5NL SW 5NL	3	5	10	3	5	10	3	5	10	"																	
		KK	11.0	KK 65NL 5.4 5L 4.6	X12	X 23	X 30	X12	X 23	X 30	X12	X 23	X 30	"																	
	T3	PL	9.5	PL 5NL 5.3 SW 5L 4.2	X 3	X 5	X 10	X 3	X 5	X 10	X 3	X 5	X 10	"																	
	T7	SW	7.8	5NL 7.8	7	13	21	7	13	21	7	13	21	"																	
				SUB TOTAL • 4 db	138	203	270	138	203	270	138	203	270																		
				SUB TOTAL △ 6 db	154	254	298	154	254	298	154	254	298																		
				SUB TOTAL X 11 db	165	463	795	165	463	795	165	463	795																		
				SUB TOTAL NL	25	41	62	25	41	62	25	41	62																		
				GRAND TOTAL	482	961	1425	482	961	1425	482	961	1425																		

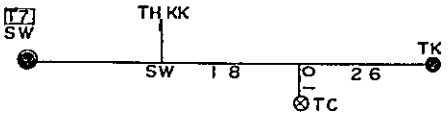
TANDEM	SECTION OF TRANSMISSION CIRCUIT
T7	SW ~ TC ~ TK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90
GENERAL CIRCUIT	T1	SR	9.3	SR 5L 4.2 5NL 5.1	X30	X90	X120	X30	X90	X120	TC														
		BP	8.6	BP 65L 2.6 KK 65L 2.9 SW 5L 3.1	—	—	X25	—	—	X25														
		PTW	9.0	PTW 5NL 4.7 5NL 5.1	—	X56	X87	—	X56	X87														
		SS	9.6	65L 3.4 KK 65L 3.1 5L 3.1	—	—	X31	—	—	X31														
		KK	8.3	KK 65L 3.2 5NL 5.1	—	X50	X46	—	X50	X46														
		KK	6.1	65L 3.0 5L 3.1	Δ47	Δ35	Δ28	Δ47	Δ35	Δ28														
		KK TOLL	8.3 (4.0) 4.8	65L 3.2 5NL 5.1	X20	X44	X61	X20	X44	X61														
				9L 1.7 33 5L 3.1	•33	•75	•107	•33	•75	•107														
		KK TEST		65NL 5NL	10	28	42	10	28	42														
		KK OBS		65NL 5NL	3	3	3	3	3	3														
	T2	BS	8.9	BS 5L 1.1 BSb 9L 1.1 PY 65L 3.6 SW 5L 3.1	—	X11	X38	—	X11	X38														
		IM	10.9	IM 65NL 4.0 PY 65L 3.8 5L 3.1	—	X11	X30	—	X11	X30														
		LPI	7.9	IM 65L 2.9 PY 9L 1.9 5L 3.1	—	X21	X38	—	X21	X38														
		PY	9.1	PY 65L 4.0 5NL 5.1	—	X26	X34	—	X26	X34														
		PY	5.2	PY 9L 2.1 SW 5L 3.1	Δ35	Δ32	Δ35	Δ35	Δ32	Δ35														
	T3	MM	9.6	MM 5NL 4.5 SW 5NL 5.1	X26	X42	X74	X26	X42	X74														
		ASD	8.4	ASD 5L 3.5 PL 65L 1.8 5L 3.1	—	X47	X68	—	X47	X68														
		SKV	8.6	5L 3.0 PL 5L 2.8 5L 3.1	—	X42	X59	—	X42	X59														
		PL	10.4	PL 5NL 5.3 SW 5NL 5.1	X22	X64	X106	X22	X64	X106														
		PL	5.1	PL 65L 2.0 5L 3.1	Δ24	Δ20	Δ26	Δ24	Δ20	Δ26														
	T4	LS	5.3	LS PCM 2.0 5L 3.3	Δ18	Δ26	Δ36	Δ18	Δ26	Δ36		TC													
	T5	DK	9.1	DK 9L 1.3 TH 5L 4.7 5L 3.1	—	X11	X26	—	X11	X26															
		CHW	8.3	CHW 5L 3.8 TH 9L 1.4 5L 3.7	—	X18	X49	—	X18	X49															
		TH	10.0	TH 5L 4.9 5NL 5.1	X34	X65	X92	X34	X65	X92															
		TH	6.2	TH 65L 3.1 5L 3.1	Δ26	Δ46	Δ68	Δ26	Δ48	Δ68															
	T6	CP	9.2	CP 65L 3.3 PL 5L 2.8 5L 3.1	X22	X36	X40	X22	X36	X40															
		BN	8.4	BN 65L 2.2 PKN 9L 2.2 PL 9L 0.9 5L 3.1	—	X12	X17	—	X12	X17														
		PS	8.7	PS 9L 2.3 PKN 9L 2.4 PL 9L 0.9 5L 3.1	—	X14	X31	—	X14	X31														
		SMP	9.3	SMP PCM 2.0 PKN 9L 2.6 PL 65L 1.8 SW 5L 3.1	—	—	X13	—	—	X13														
		ONI	8.8	ONI 65 9.6 PKN 9L 2.7 PL 9L 0.9 5L 3.1	—	—	X12	—	—	X12														
		ON2	9.3	ON2 PCM 2.0 PW 9L 2.4 PL 65L 1.8 5L 3.1	—	—	X11	—	—	X11														
		HM	8.3	HM 65L 4.3 9L 0.9 5L 3.1	—	X30	X50	—	X30	X50														
		PKN	8.3	PKN 9L 2.4 PL 5L 2.8 5L 3.1	—	X11	X15	—	X11	X15														
		PKN	(6.0) 6.4	PKN 9L 2.4 PL 9L 0.9 SW 5L 3.1	Δ40	Δ64	Δ80	Δ40	Δ64	Δ80														
	T7	SP	9.4	SP 9L 1.7 SM 5L 2.6 SW 5NL 5.1	—	X11	X27	—	X11	X27															
		SW	5.1	SW 5NL 5.1	X99	X186	X255	X99	X186	X255															
		SW SPS	5.1	5NL 5.1	X6	X13	X18	X6	X13	X18															
		SW	3.1	5NL 3.1	•130	•204	•221	•130	•204	•221															
		SW	5.1	5NL 5.1	Δ20	Δ23	Δ28	Δ20	Δ23	Δ28															
		SW MISC	5.1	5NL 5.1	6	6	6	6	6	6															
		TK	9.7	TK 5L 4.6 SW 5NL 5.1	X32	X111	X153	X32	X111	X153															
EXECTIVE CIRCUIT	T1	KK	8.3	TK 65L 3.2 SW 5NL 5.1	X1	X3	X9	X1	X3	X9															
	T3	PL	10.4	PL 5NL 5.3 SW 5NL 5.1	X1	X3	X9	X1	X3	X9															
	T7	SW	5.1	SW 5NL 5.1	X1	X3	X9	X1	X3	X9															

(TC)

TANDEM	SECTION OF TRANSMISSION CIRCUIT
T7	SW ~ TC ~ TK



KIND OF CIRCUIT	TANDEM NO	DESTINATION OFFICE	LOSS TOTAL	TRANSMISSION SUSTEM & LOSS (d b)			'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	'76	'80	'90	TRANSMISSION SUSTEM & LOSS (d·b)				LOSS TOTAL	DESTINATION OFFICE	TANDEM NO	KIND OF CIRCUIT
						SUB TOTAL	⊹ 4 db	163	279	328	163	279	328																
							△ 6 db	204	248	289	204	248	289																
							X 11 db	294	1031	1653	294	1031	1653																
							NL	19	37	51	19	37	51																
						GRAND TOTAL		680	1595	2321	680	1595	2321																

D. ケーブル対数決定資料

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 1

SECTION		ITEM		CONDUCTOR DIAMETER 0.9mm					〃 0.65mm			〃 0.5mm		
NO	NAME			TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS
1	TK — SW (1 — 3)	NUMBER OF CIRCUIT, AT '80		517	—	—	63	454				444	259	185
		〃 AT '90		704	—	—	119	598				721	367	354
		EXISTING	CABLES	600P								—		
			PAIRS	600	—	—	300	300				—	—	—
		INCREASING	PAIRS					154+144				900		185+169
			CABLES									900.5ASP		
			COILS					200P						200P
2	SR — SW (2 — 3)	NUMBER OF CIRCUIT, AT '80										1361	1130	231
		〃 AT '90										1716	1487	279
		EXISTING	CABLES									1500P		
			PAIRS									1500	1500	—
		INCREASING	PAIRS											231+48
			CABLES											
			COILS											300P
3	SR — PL (2 — 4)	NUMBER OF CIRCUIT, AT '80							766	4	762	1520	528	992
		〃 AT '90							1186	4	1182	2334	821	1513
		EXISTING	CABLES						—			1200P		
			PAIRS						—	—	—	1200	800	400
		INCREASING	PAIRS						1200	18	762+420	0+1200		592
			CABLES						1200.65ASP			1200.65ASP		
			COILS								800P			600P

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 2

SECTION		ITEM		CONDUCTOR DIAMETER 0.9mm					〃 0.65mm			〃 0.5mm		
NO.	NAME			TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS
4	SR — TH (2 — 5)	NUMBER OF CIRCUIT, AT '80										692		
		〃 AT '90										1165		
		EXISTING	CABLES									1500P		
			PAIRS									1500	1500	—
		INCREASING	PAIRS											
			CABLES											
			COILS											
5	SR — PY (2 — 6)	NUMBER OF CIRCUIT, AT '80										591	15	576
		〃 AT '90										738	30	708
		EXISTING	CABLES									1800P		
			PAIRS									600	500	100
		INCREASING	PAIRS											476+132
			CABLES											
			COILS											500P
6	SR — KK (2 — 7)	NUMBER OF CIRCUIT, AT '80										2368	2368	—
		〃 AT '90										2965	2965	—
		EXISTING	CABLES									900P 1800P		
			PAIRS									2700	2700	—
		INCREASING	PAIRS											
			CABLES											
			COILS											

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 3

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
7	SW — PL (3 — 4)	NUMBER OF CIRCUIT, AT '80		976	(25)	50	8	918	1 507	121	1 386	3 090	2 250	840
		〃 AT '90		1544	(39)	78	8	1458	2 146	189	1 957	4 205	3 150	1 055
		EXISTING	CABLES	—					1 200P 1 200P			—		
			PAIRS	—	—	—	—	—	2 400	1 600	800	—	—	—
		INCREASING	PAIRS	1 050+600	(25)+(14)	78	54+60	918+540			586+571	3600+600		840+215
			CABLES	600.9PEF-P 450.9ASP	(Partial	Increace)						1 800.5ASP 1 800.5ASP		
			COILS					500P 450P			600P			500P 500P
8	SW — TH (3 — 5)	NUMBER OF CIRCUIT, AT '80		696	(71)	142	4	550	903	4	899	1 382	459	923
		〃 AT '90		1096	(116)	232	4	860	1 462	18	1 444	2 066	621	1 445
		EXISTING	CABLES	100P					—					
			PAIRS	100	—	—	10	90	—	—	—			
		INCREASING	PAIRS	600 +500	(71)+(45)			460+310	1 200 +300		899+545	1 800+ 300		923+522
			CABLES	600.9PEF-P	+500.9ASP				1200.65ASP	+600.65ASP		1800. 5ASP		
			COILS					450 P			900P			1000P
9	SW — PY (3 — 6)	NUMBER OF CIRCUIT, AT '80		531	(61)	122	147	262	1 148	347	801			
		〃 AT '90		742	(97)	194	210	338	1 492	348	1 144			
		EXISTING	CABLES	600 P					—					
			PAIRS	600			300	300	—	—	—			
		INCREASING	PAIRS	0 + 200				0 + 38	1 200 + 0		801+343			
			CABLES						1200.65ASP					
			COILS								800P			

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 4

SECTION		ITEM		CONDUCTOR DIAMETER 0 9mm					〃 0 65mm			〃 0 5mm		
NO.	NAME			TOTAL PAIRS	P.C M SYSTEMS	P C M PAIRS	N L PAIRS	L PAIRS	TOTAL PAIRS	N L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS
10	SW — KK (3 — 7)	NUMBER OF CIRCUIT, AT '80		153	—	—	—	153	2 074	1 486	588			
		〃 AT '90		229	—	—	—	229	2 406	1 671	735			
		EXISTING	CABLES	300P					900P 1 200P					
			PAIRS	200	—	—	—	200	2 100	1 490	610			
		INCREASING	PAIRS								0 + 125			
			CABLES											
			COILS											
11	SW — MM (3 — 9)	NUMBER OF CIRCUIT, AT '80										778	553	225
		〃 AT '90										1 122	780	342
		EXISTING	CABLES									1 200P		
			PAIRS									1 200	800	400
		INCREASING	PAIRS											
			CABLES											
			COILS											
12	SW — TC (3 — 43)	NUMBER OF CIRCUIT, AT '80										1 602	827	775
		〃 AT '90										2 321	1 179	1 142
		EXISTING	CABLES									—		
			PAIRS									—	—	—
		INCREASING	PAIRS									1 800 + 600		775+367
			CABLES									1800.5ASP		
			COILS											800P

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80, THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 5

SECTION NO	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0 9mm TOTAL PAIRS	P.C.M (SYSTEMS)	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0 65mm. TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0 5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
13	PL – PY (4 – 6)	NUMBER OF CIRCUIT, AT '80		446	(21)	42	68	336	1 037	647	390			
		〃 AT '90		494	(34)	68	73	353	1 814	1 046	768			
		EXISTING	CABLES	600P					1 200P 1 200P					
			PAIRS	600	—	—	275	325	2 400	1 100	1 300			
		INCREASING	PAIRS											
			CABLES											
			COILS											
14	PL – KK (4 – 7)	NUMBER OF CIRCUIT, AT '80		479	(46)	92	47	340	1 180	369	811	2 292	729	1 563
		〃 AT '90		733	(53)	106	75	552	1 865	646	1 219	2 899	1 046	1 853
		EXISTING	CABLES	600P					900P 900P			1 800P		
			PAIRS	600	—	—	—	600	1 800	1 100	700	1 800	1 800	—
		INCREASING	PAIRS	0 + 200							111+408	1800 + 0		
			CABLES									1800.5ASP		
			COILS								200P			1600P
15	PL – CP (4 – 8)	NUMBER OF CIRCUIT, AT '80		292	—	—	4	284	324	—	324	1 839	357	1 482
		〃 AT '90		316	—	—	4	312	373	—	373	1 769	405	1 364
		EXISTING	CABLES	300P					900P			1 500P		
			PAIRS	300	—	—	—	300	900	—	900	1 500	600	900
		INCREASING	PAIRS											
			CABLES											
	X I		COILS											

NOTES . THICK CHARACTER – INCREASING CABLES & COILS AT '80 THICK CHARACTER – INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 6

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
16	PL – SKV (4 – 39) ※2	NUMBER OF CIRCUIT, AT '80							382	4	378	2 260	1 646	614
		〃 AT '90							656	4	652	3 398	2 461	937
		EXISTING	CABLES						—			—		
			PAIRS						—	—	—	—	—	—
		INCREASING	PAIRS									0 + 3 300		0+1000
			CABLES									1800.5ASP 1500.5ASP		
			COILS											
17	PL – SKV (4 – 39) ※1 + ※2	NUMBER OF CIRCUIT, AT '80		292	—	—	4	284	706	4	702	2 260	1 646	614
		〃 AT '90		316	—	—	4	312	1 029	4	1025	3 398	2 461	937
		EXISTING	CABLES	300P					900P			—		
			PAIRS	300	—	—	—	300	900	—	900	—	—	—
		INCREASING	PAIRS									0 + 3 300		0+1000
			CABLES									1 800.5ASP 1500.5ASP		
			COILS											
18	CP – SKV (8 – 39) ※3	NUMBER OF CIRCUIT AT '80							381	381	—			
		〃 AT '90							541	541	—			
		EXISTING	CABLES						—					
			PAIRS						—	—	—			
		INCREASING	PAIRS											
			CABLES											
			COILS											

NOTES : THICK CHARACTER – INCREASING CABLES & COILS AT '80. THICK CHARACTER – INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 7

SECTION		ITEM		CONDUCTOR DIAMETER 0.9mm					〃 0.65mm			〃 0.5mm		
NO.	NAME			TOTAL PAIRS	P.C.M (SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS
19	CP - SKV (8 — 39) ※1 + ※3	NUMBER OF CIRCUIT, AT '80		292	—	—	4	284	705	381	324	1 839	357	1482
		〃 AT '90		316	—	—	4	312	914	541	373	1 769	405	1364
		EXISTING	CABLES	300P					900P			1 500P		
			PAIRS	300	—	—	—	300	900	—	900	1 500	600	900
		INCREASING	PAIRS											
			CABLES											
			COILS											
20	PL - MM (4 - 9) (PL - MMb)	NUMBER OF CIRCUIT, AT '80		321	—	—	4	317	594	239	355	821	178	643
		〃 AT '90		546	—	—	4	542	1 206	420	786	1 334	328	1006
		EXISTING	CABLES	600P					600P			900P (0 65)		
			PAIRS	600	—	—	—	600	600	270	330	900	250	650
		INCREASING	PAIRS						0 + 600		25+431	0 + 600		0 +350
			CABLES						**600.65ASP**			**600.5ASP**		
			COILS								100P			
21	PL - MM (4 - 9) (MM.b - MM)	NUMBER OF CIRCUIT, AT '80		321	—	—	4	317	594	239	355	821	178	643
		〃 AT '90		546	—	—	4	542	1 206	420	786	1 334	328	1006
		EXISTING	CABLES	300P					600P			900P		
			PAIRS	300	—	—	—	300	600	270	330	900	250	650
		INCREASING	PAIRS	0 + 300				0 +225	0 + 600		25+431	0 + 600		0 + 356
			CABLES	**300.9 ASP**					**600.65ASP**			**600. 5ASP**		
			COILS								100P			

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 8

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
22	PL – HM (4 – 35)	NUMBER OF CIRCUIT, AT '80		606	—	—	22	584	1 424	164	1 260			
		〃 〃 AT '90		825	—	—	34	791	2 609	348	2 261			
		EXISTING	CABLES	—					—					
			PAIRS	—	—	—	—	—	—	—	—			
		INCREASING	PAIRS	600+300				584+207	1200+1200		1100+1000			
			CABLES	600.9ASP	300.9ASP				1200.65ASP	1200.65ASP				
			COILS					600P			1 100P			
23	PL – ASD (4 – 37)	NUMBER OF CIRCUIT, AT '80										2 491	759	1 732
		〃 AT '90										3 306	1 185	2 121
		EXISTING	CABLES									—		
			PAIRS									—	—	—
		INCREASING	PAIRS									3 300		1732+389
			CABLES									1800.5ASP 1500.5ASP		
			COILS											1 200 P 600 P
24	PL – PTW (4 – 34)	NUMBER OF CIRCUIT, AT '80										1 195	1 047	148
		〃 AT '90										2 204	1 906	298
		EXISTING	CABLES									—		
			PAIRS									—	—	—
		INCREASING	PAIRS									1200+1100		148+150
			CABLES									1200.5ASP	1200.5ASP	
			COILS											200P

NOTES . THICK CHARACTER – INCREASING CABLES & COILS AT '80. THICK CHARACTER – INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 9

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M (SYSTEMS)	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
25	PL — PKN (4 — 45)	NUMBER OF CIRCUIT, AT '80		1 483	(71)	142	160	1 181	1 635	116	1 530			
		〃 AT '90		2 257	(92)	184	245	1 833	2 918	207	2 734			
		EXISTING	CABLES	600P(PKN-CP) 300P(CP-PL)					1200P(CP-MM b)					
			PAIRS	600 (PKN-CP) 300 (CP - PL)			100 —	500 300	1200(CP-MM.b)		1 200			
		INCREASING	PAIRS						1 200+600		319+192			
			CABLES	600.9 PEF-P(PKN-PL)		600.9ASP(PKN-PL)		500P	1 200.65ASP(PKN-PL)		400P	Existing Cable 300.9ASP		
			COILS	600.9PEF-P(PKN-PL) 600.9ASP (CP - PL)				200P 500P	1 200.65ASP(PL.MMb) 1 200.65ASP(PKN-CP)		1 200P 1 200P	Use to CP — PL		
26	TH — KK (5 — 7)	NUMBER OF CIRCUIT, AT '80		569	—	—	—	569	1 654	785	869			
		〃 AT '90		825	—	—	—	825	2 356	1 006	1 350			
		EXISTING	CABLES	400P 550P					1 100P 1 100P					
			PAIRS	200 550	—	—	—	200 550	2 100	900	1 200			
		INCREASING	PAIRS	0 + 100				0 + 100			0 + 150			
			CABLES	100. 9ASP										
			COILS											
27	TH — BC (5 — 16)	NUMBER OF CIRCUIT, AT '80		712	—	—	102	610				672	230	442
		〃 AT '90		1 080	—	—	183	897				1 286	643	643
		EXISTING	CABLES	600P 600P								—		
			PAIRS	1 200	—	—	1 000	200				—	—	—
		INCREASING	PAIRS					210+287				1 500		442+215
			CABLES									1500.5ASP		
			COILS					300P						500 P

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 10

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	PCM SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
28	BC — PSR (16 — 30)	NUMBER OF CIRCUIT, AT '80							657	125	532			
		〃 AT '90							1028	225	803			
		EXISTING	CABLES						—					
			PAIRS						—	—	—			
		INCREASING	PAIRS						1200		532+271			
			CABLES						1200.65ASP					
			COILS								600P			
29	TH — MSK (5 — 46)	NUMBER OF CIRCUIT, AT '80		203	(33)	66	74	63						
		〃 AT '90		366	(41)	82	100	184						
		EXISTING	CABLES	200P										
			PAIRS	200	—	—	—	200						
		INCREASING	PAIRS	0 + 200										
			CABLES	200.9ASP	(BC-MSK)									
			COILS											
30	MSK — NK (46 — 28)	NUMBER OF CIRCUIT, AT '80		59	(10)	20	18	21						
		〃 AT '90		115	(13)	26	20	69						
		EXISTING	CABLES	200P										
			PAIRS	200	—	—	—	200						
		INCREASING	PAIRS											
			CABLES											
			COILS											

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 11

SECTION		ITEM		CONDUCTOR DIAMETER 0.9mm					〃 0.65mm			〃 0.5mm		
NO	NAME			TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS
31	PPJ — PD (49 — 12)	NUMBER OF CIRCUIT, AT '80		54	(9)	18	20	16						
		〃 AT '90		118	(16)	32	31	55						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS	0 + 150										
			CABLES	**150.9PEP-P**										
			COILS											
32	PD — DK (12 — 17)	NUMBER OF CIRCUIT, AT '80		191	(15)	30	67	94						
		〃 AT '90		424	(18)	36	113	275						
		EXISTING	CABLES	50P 150P										
			PAIRS	200	(20)	40								
		INCREASING	PAIRS	0 + 400										
			CABLES											
			COILS											
33	BKT — DK (40 — 17)	NUMBER OF CIRCUIT, AT '80							606	88	518			
		〃 AT '90							1 206	163	1 043			
		EXISTING	CABLES						—					
			PAIRS						—	—	—			
		INCREASING	PAIRS						0 + 1200		0+ 518 525			
			CABLES						**600.65ASP** **600.65ASP**					
			COILS											

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 12

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M (SYSTEMS)	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
34	TH – DK (5 – 17)	NUMBER OF CIRCUIT, AT '80		1209	(15)	30	67	94						
		〃 AT '90		1896	(18)	36	113	275						
		EXISTING	CABLES	600P 600P 200P (PCM)										
			PAIRS	1400	(20)	40	700	560						
	[TH–DK cct TH–PD cct]	INCREASING	PAIRS											
			CABLES											
	※1		COILS											
35	TH – DK (5 – 17)	NUMBER OF CIRCUIT, AT '80		621	(9)	18	81	522						
		〃 AT '90		1243	(16)	32	150	1061						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
	[TH–PPJ cct TH–BKT cct]	INCREASING	PAIRS											
			CABLES											
	※2		COILS											
36	TH – DK (5 – 17) TOTAL	NUMBER OF CIRCUIT, AT '80		812	(24)	48	148	616				1018	368	650
		〃 AT '90		1679	(34)	68	263	1348	TH–DK間の回線は'80以降に於てBKTがService in する時に1500 5ASPに収容する			1472	532	940
		EXISTING	CABLES	600P 600P 200P								—		
			PAIRS	1400	(20)	40	800	560				—	—	—
		INCREASING	PAIRS	0+300				56+732				0+1500		0+940
	※1+※2		CABLES	**300.9ASP**								**1500.5ASP**		
			COILS					100P						

NOTES : THICK CHARACTER – INCREASING CABLES & COILS AT '80. THICK CHARACTER – INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 13

SECTION		ITEM		CONDUCTOR DIAMETER 0.9mm					〃 0.65mm			〃 0.5mm		
NO	NAME			TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS
37	TH — CHW (5 — 41)	NUMBER OF CIRCUIT, AT '80										1 291	264	1 027
		〃 AT '90										2 420	513	1 907
		EXISTING	CABLES									—		
			PAIRS									—	—	—
		INCREASING	PAIRS									1 500 +1 100		1027+880
			CABLES									**1500. 5ASP**	**1200.5ASP**	
			COILS											**1200P**
38	PY — KK (6 — 7)	NUMBER OF CIRCUIT, AT '80		792	(31)	62	64	666	900	523	377	621	194	427
		〃 AT '90		1 127	(43)	86	110	931	887	424	463	754	217	537
		EXISTING	CABLES	400P					1 100P			—		
			PAIRS	400	—	—	100	300	900	360	540	—	—	—
		INCREASING	PAIRS	600+200				366+265				900		427+110
			CABLES	**600.9PEF-P**								**900. 5ASP**		
			COILS					**400P**						**500P**
39	PY — IM (6 — 21)	NUMBER OF CIRCUIT, AT '80							789	503	286	827	827	—
		〃 AT '90							1 112	725	387	1 495	1 459	36
		EXISTING	CABLES						900P			—		
			PAIRS						900	600	300	—	—	—
		INCREASING	PAIRS									1 800		0 + 36
			CABLES									**1800. 5ASP**		
			COILS											

NOTES THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 14

SECTION		ITEM		CONDUCTOR DIAMETER 0.9mm					〃 0.65mm			〃 0.5mm		
NO.	NAME			TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS
40	NWW — NWW.b (15 — NWW.b)	NUMBER OF CIRCUIT, AT '80		650	—	—	60	590						
		〃 AT '90		825	—	—	60	765						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS	600+300				590+275						
			CABLES	600 9ASP	300.9ASP									
			COILS					600P						
41	NWW.b — PY (NWW.b — 6)	NUMBER OF CIRCUIT, AT '80		507	—	—	49	458						
		〃 AT '90		668	—	—	46	622						
		EXISTING	CABLES	600P										
			PAIRS	600	—	—	200	400						
		INCREASING	PAIRS					58+100						
			CABLES											
			COILS					150P						
42	NWW.b — LS (NWW.b — 33)	NUMBER OF CIRCUIT, AT '80		143	—	—	11	132						
		〃 AT '90		157	—	—	14	143						
		EXISTING	CABLES	600P										
			PAIRS	600	—	—	200	400						
		INCREASING	PAIRS											
			CABLES											
			COILS											

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80 THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO 15

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
43	PY — BK (6 — 15)	NUMBER OF CIRCUIT, AT '80		772	—	—	166	606						
		〃 AT '90		742	—	—	186	556						
		EXISTING	CABLES	300P 600P	(PCM)									
			PAIRS	900				300 300	—PbIをイエック					
		INCREASING	PAIRS											
			CABLES											
			COILS											
44	PY — BSb (6 — BS.b) from BS.NN ※1	NUMBER OF CIRCUIT, AT '80		485	—	—	27	458	1187	202	985			
		〃 AT '90		894	—	—	100	794	2253	326	1927			
		EXISTING	CABLES	600P					—					
			PAIRS	600			275	325	—	—	—			
		INCREASING	PAIRS											
			CABLES											
			COILS											
45	PY — BS.b (6 — BS.b) from SS.BP ※2	NUMBER OF CIRCUIT, AT '80		401	—	—	248	153						
		〃 AT '90		711	—	—	403	308						
		EXISTING	CABLES	550P										
			PAIRS	550	—	—	250	300						
		INCREASING	PAIRS											
			CABLES											
			COILS											

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 16

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M (SYSTEMS)	P.C.M PAIRS	N.L PAIRS	L PAIRS	" 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	" 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
46	PY — BS b (6 — BS. b) TOTAL X·1 + X·2	NUMBER OF CIRCUIT AT '80		886	—	—	275	611	1 187	202	985			
		" AT '90		1 605	—	—	503	1 102	2 253	326	1927			
		EXISTING	CABLES	600P 550P					—					
			PAIRS	1 150	—	—	525	625	—	—	—			
		INCREASING	PAIRS	0 + 500				158+336	1100 + 1200		985+942			
			CABLES	500 9ASP					1100.65ASP					
			COILS					200P			1000P			
47	BS — BS.b (18 — BS b) (BS — PY district, BS — SS ")	NUMBER OF CIRCUIT AT '80		2 342	—	—	792	1 550						
		" AT '90		4 386	—	—	1 537	2849						
		EXISTING	CABLES	550P 600P 450P 600P										
			PAIRS	2 200	—	—	875	1 325						
		INCREASING	PAIRS	0 + 600 600				175+1299						
			CABLES											
			COILS					200P						
48	BS. b — SS (BS. b — 52) (SS — PY district, SS — BS ")	NUMBER OF CIRCUIT AT '80		1 129	—	—	799	330						
		" AT '90		2 142	—	—	1 465	677						
		EXISTING	CABLES	600P 600P										
			PAIRS	1 200			900	300						
		INCREASING	PAIRS	0+ 600 300										
			CABLES	600. 9ASP 300.9ASP										
			COILS											

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 17

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
49	PY — LS (6 — 33) (LS-T1 district) X1	NUMBER OF CIRCUIT, AT '80		409	(36)	72	85	252						
		〃 AT '90		649	(58)	116	133	400						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS											
			CABLES											
			COILS											
50	PY — LS (6 — 33) (LS-T2 district) X2	NUMBER OF CIRCUIT, AT '80		221	(30)	60	15	146						
		〃 AT '90		431	(29)	58	27	346						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS											
			CABLES											
			COILS											
51	PY — LS (6 — 33) (LS-T1/T2 district) X1 + X2	NUMBER OF CIRCUIT, AT '80		630	(66)	132	100	398						
		〃 AT '90		1030	(87)	174	160	746						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS	600+500				398+348						
			CABLES	**600.9PEF-P**	**550.9ASP**									
			COILS					**400P**						

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 18

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M (SYSTEMS)	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
52	PY — LS (6' — 33) (LS – T6 district) X·3	NUMBER OF CIRCUIT, AT '80		48	(22)	44	4	—						
		〃 AT '90		72	(34)	68	4	—						
		EXISTING	CABLES											
			PAIRS											
		INCREASING	PAIRS											
			CABLES											
			COILS											
53	PY — LS (6 — 33) (LS – T3 district) X·4	NUMBER OF CIRCUIT, AT '80		67	(21)	42	—	25						
		〃 AT '90		170	(34)	68	—	102						
		EXISTING	CABLES											
			PAIRS											
		INCREASING	PAIRS											
			CABLES											
			COILS											
54	PY — LS (6 — 33) (LS – T7 district) X·5	NUMBER OF CIRCUIT, AT '80		199	(14)	28	147	24						
		〃 AT '90		330	(19)	38	214	78						
		EXISTING	CABLES											
			PAIRS											
		INCREASING	PAIRS											
			CABLES											
			COILS											

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 19

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
55	PY — LS (6 — 33) (LS - T5 district) ※6	NUMBER OF CIRCUIT, AT '80		28	(14)	28	—	—						
		〃 AT '90		44	(22)	44	—	—						
		EXISTING	CABLES											
			PAIRS											
		INCREASING	PAIRS											
			CABLES											
			COILS											
56	PY — LS (6 — 33) [LS - T6, T3, T7, T5 district] ※3 + ※4 + ※5 + ※6	NUMBER OF CIRCUIT, AT '80		342	(71)	142	151	49						
		〃 AT '90		616	(109)	218	218	180						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS	600				49+131						
			CABLES	600.9PEF-P										
			COILS					200P						
57	PY — ASD (6 — 37)	NUMBER OF CIRCUIT, AT '80		270	(49)	98	4	168	773	466	307			
		〃 AT '90		514	(64)	128	4	382	1056	634	422			
		EXISTING	CABLES	—					—					
			PAIRS	—	—	—	—	—	—	—	—			
		INCREASING	PAIRS	600				168+214	1200		307+115			
			CABLES	600.9PEF-P					1200.65ASP					
			COILS					200P			300P			

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80 THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO 20

SECTION		ITEM		CONDUCTOR DIAMETER 0.9mm					〃 0.65mm			〃 0.5mm		
NO.	NAME			TOTAL PAIRS	PCM (SYSTEMS)	P.C.M PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS
58	ASD — CP (37 — 8)	NUMBER OF CIRCUIT, AT '80		296	(49)	98	4	194	724	142	582			
		〃 AT '90		497	(64)	128	4	369	907	172	735			
		EXISTING	CABLES	—					—					
			PAIRS	—	—	—	—	—	—	—	—			
		INCREASING	PAIRS	600				194+175	900		582+153			
			CABLES	**600.9PEF-P**					**900.9ASP**					
			COILS					**200P**			**600P**			
59	CP — PKN (8 — 45)	NUMBER OF CIRCUIT, AT '80		220	(49)	98	4	118	276	4	272			
		〃 AT '90		439	(64)	128	4	307	483	4	479			
		EXISTING	CABLES						600P					
			PAIRS						600	100	500			
		INCREASING	PAIRS	600				118+189						
			CABLES	**600.9PEF-P**										
			COILS					**200P**						
60	PY — LPI (6 — 42)	NUMBER OF CIRCUIT, AT '80		290	(22)	44	4	242	2248	771	1477			
		〃 AT '90		426	(28)	56	4	366	3965	1457	2508			
		EXISTING	CABLES	300P	(PCM)				—					
			PAIRS	300				300	—	—	—			
		INCREASING	PAIRS						2400+1200		1477+1031			
			CABLES						**1200.65ASP** 1200.65ASP	**1200.65ASP**				
			COILS								**500P** 1000P			

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 21

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M (SYSTEMS)	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
61	LP1 — LP2 (42 — 31)	NUMBER OF CIRCUIT, AT '80		981	(22)	44	163	774						
		〃 AT '90		1546	(28)	56	284	1206						
		EXISTING	CABLES	300P	(PCM)									
			PAIRS	300				300						
		INCREASING	PAIRS	600+600				474+526						
			CABLES	600.9ASP	600.9ASP									
			COILS					500P						
62	LP2 — KC (31 — 20)	NUMBER OF CIRCUIT, AT '80		327	(22)	44	120	167						
		〃 AT '90		562	(28)	56	184	326						
		EXISTING	CABLES	300P	(PCM)									
			PAIRS	300										
		INCREASING	PAIRS	0+300				0+26						
			CABLES	300.9ASP										
			COILS											
63	PY — PTW (6 — 44)	NUMBER OF CIRCUIT, AT '80										499	216	283
		〃 AT '90										871	358	513
		EXISTING	CABLES									—		
			PAIRS									—	—	—
		INCREASING	PAIRS									900+0		283+230
			CABLES									900.5ASP		
			COILS											300P

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 22

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	PCM (SYSTEMS)	PCM PAIRS	NL PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	NL PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
64	SW — PTW (3 — 44)	NUMBER OF CIRCUIT, AT '80										657	657	—
		〃 AT '90										1 048	1048	—
		EXISTING	CABLES									—		
			PAIRS									—	—	—
		INCREASING	PAIRS									1100 + 0		
			CABLES									1200.5ASP		
			COILS											
65	KK — PTW (7 — 44)	NUMBER OF CIRCUIT, AT '80										1 206	723	483
		〃 AT '90										1 867	1 205	662
		EXISTING	CABLES									—		
			PAIRS									—	—	—
		INCREASING	PAIRS									1 800 + 0		483+179
			CABLES									1800.5ASP		
			COILS											500P
66	KK — SS (7 — 50)	NUMBER OF CIRCUIT, AT '80		340	—	—	196	144	1 650	1 299	351	901	323	578
		〃 AT '90		586	—	—	362	224	2 929	2 303	626	1 558	778	780
		EXISTING	CABLES	600P					600P			900P		
			PAIRS	600				600	600	400	200	900	900	—
		INCREASING	PAIRS						1 200+1200		51 + 275	0 + 600		578+202
			CABLES						1200.65ASP	1200.65ASP		600.5ASP		
			COILS											600P

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80 THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 23

SECTION		ITEM		CONDUCTOR DIAMETER 0.9mm					〃 0.65mm			〃 0.5mm		
NO	NAME			TOTAL PAIRS	PCM SYSTEMS	PCM PAIRS	NL PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	NL PAIRS	L PAIRS
67	SP — MM (10 — 9)	NUMBER OF CIRCUIT AT '80		527	—	—	128	399						
		〃 AT '90		933	—	—	318	615						
		EXISTING	CABLES	300P 600P										
			PAIRS	900	—	—	600	300						
		INCREASING	PAIRS	—				99+216						
			CABLES											
			COILS					100P						
68	NWW — NWW NN b (11 — NWW NN.b)	NUMBER OF CIRCUIT AT '80		294	—	—	224	70						
		〃 AT '90		559	—	—	410	149						
		EXISTING	CABLES	300P 600P										
			PAIRS	900	—	—	10 200	290 400						
		INCREASING	PAIRS											
			CABLES											
			COILS											
69	NN — BS (51 — 18)	NUMBER OF CIRCUIT AT '80		652	—	—	182	470						
		〃 AT '90		1207	—	—	385	822						
		EXISTING	CABLES	300P 600P				290 400						
			PAIRS	900										
		INCREASING	PAIRS	0+300				0+132						
			CABLES	300.9ASP										
			COILS											

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80 THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO 24

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
70	PKN — CP (45 — 8)	NUMBER OF CIRCUIT, AT '80										926	128 686	112(SKV-PKN) —
		〃 AT '90										1194	247 808	139(SKV-PKN) —
		EXISTING	CABLES									—		
			PAIRS									—	—	—
		INCREASING	PAIRS									1500+0		112+27
			CABLES									1500.5ASP		
			COILS											150P
71	CP — HM.b (8 — HM.b) KC. HM district	NUMBER OF CIRCUIT, AT '80										193	3	190
		〃 AT '90										233	3	230
		EXISTING	CABLES									150P		
			PAIRS									150	—	150
		INCREASING	PAIRS									43 cctは	PKN全量	
			CABLES											
			COILS											
72	PKN — HM (45 — 35)	NUMBER OF CIRCUIT, AT '80							1073	193	880			
		〃 AT '90							1498	333	1165			
		EXISTING	CABLES											
			PAIRS											
		INCREASING	PAIRS						1200+0		880+285			
			CABLES						1200.65ASP					
			COILS								1000P			

NOTES · THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 25

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M (SYSTEMS)	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
73	HM — KC (35 — 20)	NUMBER OF CIRCUIT, AT '80		515	—	—	4	511	615	78	537			
		〃 AT '90		636	—	—	4	632	1076	121	955			
		EXISTING	CABLES	—					150P	- (撤去)				
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS	600+0				596	1100+0		537+418			
			CABLES	600.9ASP					1200.65ASP					
			COILS					600P			600P			
74	PKN — BN (45 — 14)	NUMBER OF CIRCUIT, AT '80		583	(33)	66	15	502	1177	194	983	927	181	746
		〃 AT '90		924	(42)	84	23	817	1720	295	1425	1012	219	793
		EXISTING	CABLES	600P					600P			—		
			PAIRS	600				600	600	100	500	—	—	—
		INCREASING	PAIRS	0+400				0+217	1200+0		483+442	1100+0		746+47
			CABLES	400.9ASP					1200.65ASP			1200.5ASP		
			COILS								500P			800P
75	BN — PS (14 — 22)	NUMBER OF CIRCUIT, AT '80		832	(33)	66	15	751	689	276	413			
		〃 AT '90		1187	(42)	84	23	1080	1156	396	760			
		EXISTING	CABLES	300P					—					
			PAIRS	300				300	—	—	—			
		INCREASING	PAIRS	600+300				451+329	1200+0		413+347			
			CABLES	600.9ASP	300.9ASP				1200.65ASP					
			COILS					500P			500P			

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO 26

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N L PAIRS	L - PAIRS	" 0 65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	" 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
76	PS — SMP (22 — 23)	NUMBER OF CIRCUIT, AT '80		423	(22)	44	208	171						
		" " AT '90		683	(28)	56	295	332						
		EXISTING	CABLES	100P	(PCM)									
			PAIRS	100			100							
		INCREASING	PAIRS	600 + 0				171+161						
			CABLES	**600.9ASP**										
			COILS					**200P**						
77	PS — BYP (22 — 38)	NUMBER OF CIRCUIT, AT '80		118	(11)	22	32	64						
		" AT '90		179	(14)	28	60	91						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS	0 + 200				0+64						
			CABLES	**200.9 PEFP**										
			COILS											
78	PKN — ONI (45 — 29)	NUMBER OF CIRCUIT, AT '80							686	19	667	276	19	257
		" AT '90							1 274	43	1 231	895	45	850
		EXISTING	CABLES						—			—		
			PAIRS						—	—	—	—	—	—
		INCREASING	PAIRS						0+1 200		0+667	0 + 900		0+300
			CABLES						**1200.65ASP**			**900.5ASP**		
			COILS											

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 27

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
79	ON1 — ON2 (29 — 27)	NUMBER OF CIRCUIT, AT '80		412		62	47	303						
		〃 AT '90		1078		84	114	880						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS	0 + 500 600				0 + 303 577						
			CABLES	**500.9PEF-P**										
			COILS											
80	ON2 — LKB (27 — 47)	NUMBER OF CIRCUIT, AT '80		110	(12)	24	19	67						
		〃 AT '90		127	(12)	24	19	84						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS	0 + 150				0 + 84						
			CABLES	**150.9PEF-P**										
			COILS											
81	LS — BK (33 — 15)	NUMBER OF CIRCUIT, AT '80		308	—	—	176	132						
		〃 AT '90		350	—	—	207	143						
		EXISTING	CABLES	300 P 200 P	(分断引込とする)									
			PAIRS	500				300 150						
		INCREASING	PAIRS											
			CABLES											
			COILS											

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 28

SECTION		ITEM		CONDUCTOR DIAMETER 0.9mm					〃 0.65mm			〃 0.5mm		
NO.	NAME			TOTAL PAIRS	PCM SYSTEMS	PCM PAIRS	NL PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS
82	LS — SDM (33 — 48)	NUMBER OF CIRCUIT, AT '80		261	—	—	4	257	374	122	252			
		〃 AT '90		258	—	—	4	254	627	212	415			
		EXISTING	CABLES	—					—					
			PAIRS	—	—	—	—	—	—	—	—			
		INCREASING	PAIRS	0 + 300				0 + 257	0 + 600		0 + 415			
			CABLES	300. 9ASP					600.65 ASP					
			COILS											
83	LS — PK (33 — 32) (Include LS-PTN)	NUMBER OF CIRCUIT, AT '80		168	(27)	54	33	81						
		〃 AT '90		294	(39)	78	56	160						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS	300 + 0				81 + 79						
			CABLES	300.9PEF-P										
			COILS					90P						
84	PK — PTN (32 — 52)	NUMBER OF CIRCUIT, AT '80		121	(14)	28	42	51						
		〃 AT '90		279	(20)	40	101	138						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS	300 + 0				51 + 87						
			CABLES	300.9PEF-P										
			COILS					150P						

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80 THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 29

SECTION		ITEM		CONDUCTOR DIAMETER 0.9mm					〃 0.65mm			〃 0.5mm		
NO	NAME			TOTAL PAIRS	P.C.M (SYSTEMS)	PCM PAIRS	NL PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS
85	LS — RID (33 — 36) (Include LS-BCH)	NUMBER OF CIRCUIT, AT '80		516	(13)	26	55	435						
		〃 AT '90		938	(18)	36	91	811						
		EXISTING	CABLES	300P										
			PAIRS	300			150	150						
		INCREASING	PAIRS	0 + 600				0 + 600						
			CABLES	**600.9ASP**										
			COILS											
86	RID — BCH (36 — 25)	NUMBER OF CIRCUIT, AT '80		73	(13)	26	17	30						
		〃 AT '90		155	(18)	36	23	96						
		EXISTING	CABLES	—										
			PAIRS	—	—	—	—	—						
		INCREASING	PAIRS	0 + 150				0 + 96						
			CABLES	**150.9 PEF-P**										
			COILS											
87	BCH — KC (25 — 20)	NUMBER OF CIRCUIT, AT '80		28		12	16	—						
		〃 AT '90		115		12	93	10						
		EXISTING	CABLES	100P	(PCM)									
			PAIRS	100										
		INCREASING	PAIRS											
			CABLES											
			COILS											

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO. 30

SECTION NO.	SECTION NAME	ITEM		CONDUCTOR DIAMETER 0.9mm TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	〃 0.65mm TOTAL PAIRS	N.L PAIRS	L PAIRS	〃 0.5mm TOTAL PAIRS	N.L PAIRS	L PAIRS
88	LS — DM (33 — 13)	NUMBER OF CIRCUIT, AT '80		447	(30)	60	139	248						
		〃 AT '90		853	(38)	76	192	585						
		EXISTING	CABLES	300P										
			PAIRS	300	(PCM)			300						
		INCREASING	PAIRS	0 + 600				0 + 220/385						
			CABLES	**600.9ASP**										
			COILS											
89	DM — RS (13 — 24)	NUMBER OF CIRCUIT, AT '80		148	(14)	28	82	38						
		〃 AT '90		265	(21)	42	127	96						
		EXISTING	CABLES	100P	(PCM)									
			PAIRS	100										
		INCREASING	PAIRS	0 + 200				0 + 38/58						
			CABLES	**200.9ASP**										
			COILS											
90	SS — BP (50 — 19)	NUMBER OF CIRCUIT, AT '80							741	88	653	561	485	76
		〃 AT '90							1251	255	996	812	689	123
		EXISTING	CABLES						1100P			1500P		
			PAIRS						1100	350	750	1500	1500	—
		INCREASING	PAIRS											
			CABLES											
			COILS											

NOTES : THICK CHARACTER - INCREASING CABLES & COILS AT '80. **THICK CHARACTER** - INCREASING CABLES AT '90.

DETERMINING DATA OF CABLE PAIRS & CONDUCTOR DIAMETER

NO.31

SECTION		ITEM		CONDUCTOR DIAMETER 0.9mm					〃 0.65mm			〃 0.5mm		
NO.	NAME			TOTAL PAIRS	P.C.M SYSTEMS	P.C.M PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS	TOTAL PAIRS	N.L PAIRS	L PAIRS
91	BP — CHW (19 — 41)	NUMBER OF CIRCUIT, AT '80							154	104	50			
		〃 AT '90							305	206	98			
		EXISTING	CABLES						—					
			PAIRS						—	—	—			
		INCREASING	PAIRS						300+0		50+48			
			CABLES						300.65ASP					
			COILS								100P			
		NUMBER OF CIRCUIT, AT '80												
		〃 AT '90												
		EXISTING	CABLES											
			PAIRS											
		INCREASING	PAIRS											
			CABLES											
			COILS											
		NUMBER OF CIRCUIT, AT '80												
		〃 AT '90												
		EXISTING	CABLES											
			PAIRS											
		INCREASING	PAIRS											
			CABLES											
			COILS											

NOTES THICK CHARACTER - INCREASING CABLES & COILS AT '80. THICK CHARACTER - INCREASING CABLES AT '90.

E. 装荷設計資料

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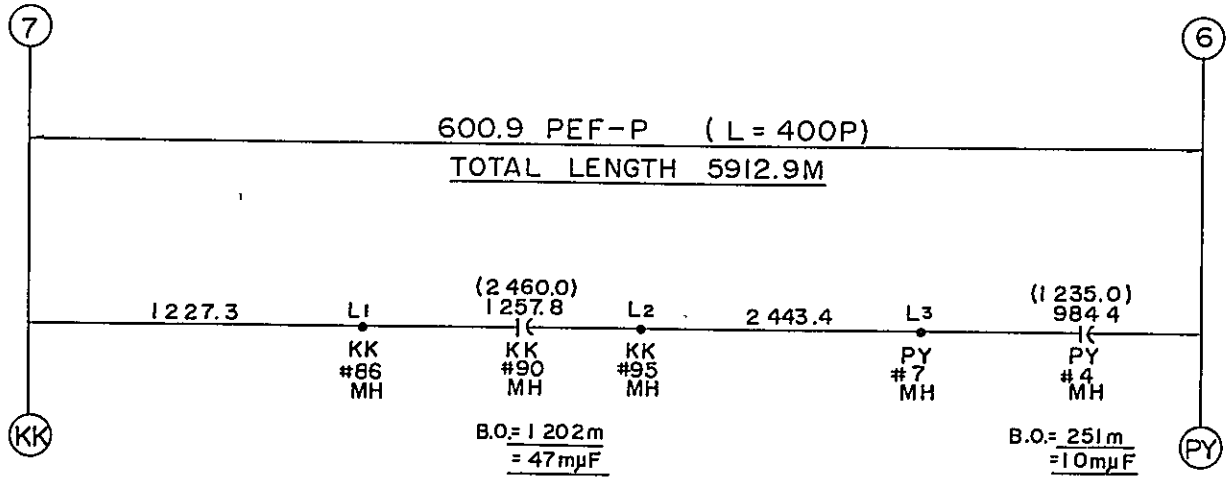
NO. OF INDEX	SECTION	CABLE	REMARK	NO. OF INDEX	SECTION	CABLE	REMARK
1	KK - PY	600.9 PEF-P		16	BS - NN	600.9 ASP	
2	KK - SS	900.5 1200.65 ASP		17	PY - KC	300.9 〃	LP_1 TURN OVER
3	KK - PTW	1800.5 〃		18	〃	〃	LP_1 LP_2 〃
4	BP - CHW	300.65 〃		19	〃	〃	LP_2 〃
5	PY - LS	600.9 PEF-P		20	LS - PTN	300.9 PEF-P	
6	PY - BK	〃		21	NWW - NN	600.9 ASP	
7	BK - LS	〃		22	PY - DM	300.9 〃	LS TURN OVER
8	PY - SW	1200.65 ASP		23	〃	〃	〃
9	PY - ASD	〃		24	BK-LS-RID	200.9-300.9 PEF-P	PHASE II MODIFICATION AND LS TOUR OVER
10	PY-KK-PTW	1800.5 ASP		25	PL - KK	1800.5 ASP	
11	PY-ASD-PKN	600.9 PEF-P		26	PL - SW	1800.5 ASP x 2	
12	PY - LP_1	1200.65 ASP 〃 〃		27	〃	600.9 PEF-P	
13	LP_1 - LP_2	600.9 〃		28	〃	450.9 ASP	
14	PY - NWW	〃		29	PL - PKN	600.9 PEF-P x 2	
15	BK - NWW	〃		30	〃	1200.65 ASP	

NO. OF INDEX	SECTION	CABLE	REMARK	NO. OF INDEX	SECTION	CABLE	REMARK
31	PL – ASD	1800.5 ASP x 2		46	HM – KC	1200.65 600. 9 ASP	
32	PL – CP	600.9 ASP		47	CP – PKN	600.9 600.65 〃	PKN TURN OVER
33	PL – HM	600.9 1200.65 ASP		48	CP – PS	〃	〃
34	PL – SR	1200.65 〃		49	CP – ARF	300.9 ASP	PS 〃
35	PL – PTW	〃		50	SW – TH	600.9 PEF-P	
36	ASD – CP	〃		51	〃	1200.65 1800.5 ASP	
37	TH – BC	1800.5 ASP		52	SW – SR	1500.5 〃	
38	BC – PSR	1200.65 〃		53	SW – TC	1800.5 〃	
39	TH – CHW	1500.5 〃		54	SW – TK	900.5 〃	
40	TH – DK	600.9 〃		55	MM – SP	600.9 〃	EX CABLE
41	PKN – CP	1200.65 1800.5 〃					
42	PKN – BN	1200.65 1200.5 〃					
43	BN – PS	1200.65 600.9 〃					
44	PS – SMP	600.9 〃					
45	PKN – HM	1200.65 〃					

KKEX ~ PYEX



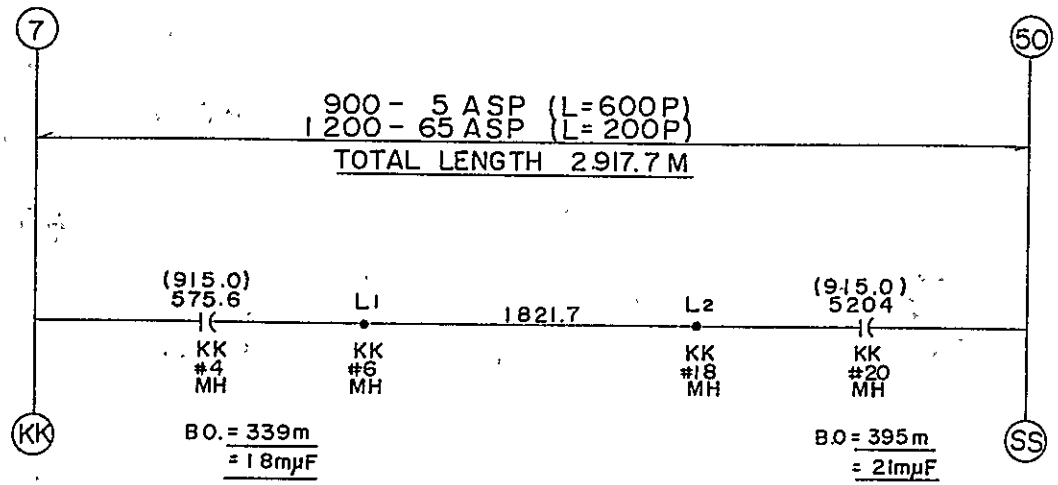
S = 2451.7

$$\frac{S_0 - S}{S_0} \times 100 = 0.7\%$$

$$\frac{S - S_1}{S} \times 100 = 0.3\%$$

NO. 1

KKEX ~ SSEX

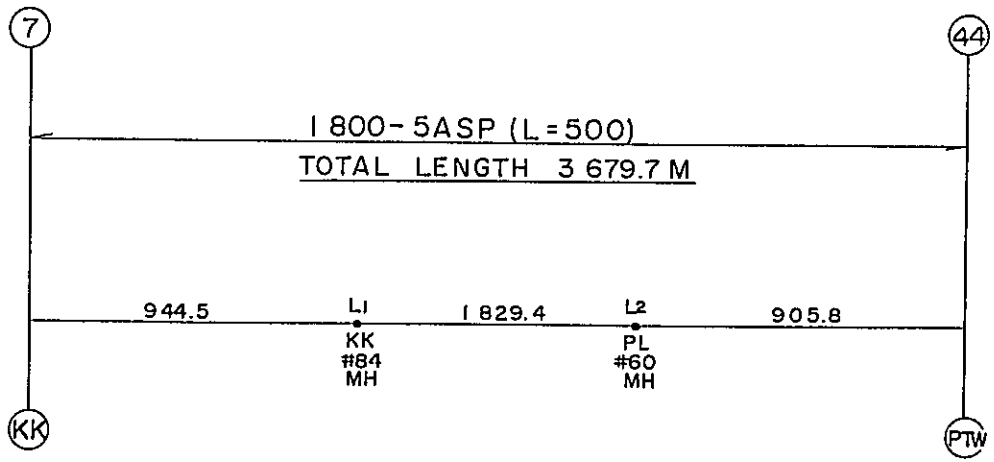


S = 1 8217

$$\frac{S_o - S}{S_o} \times 100 = 0.5\%$$

NO. 2

KKEX ~ PTWEX

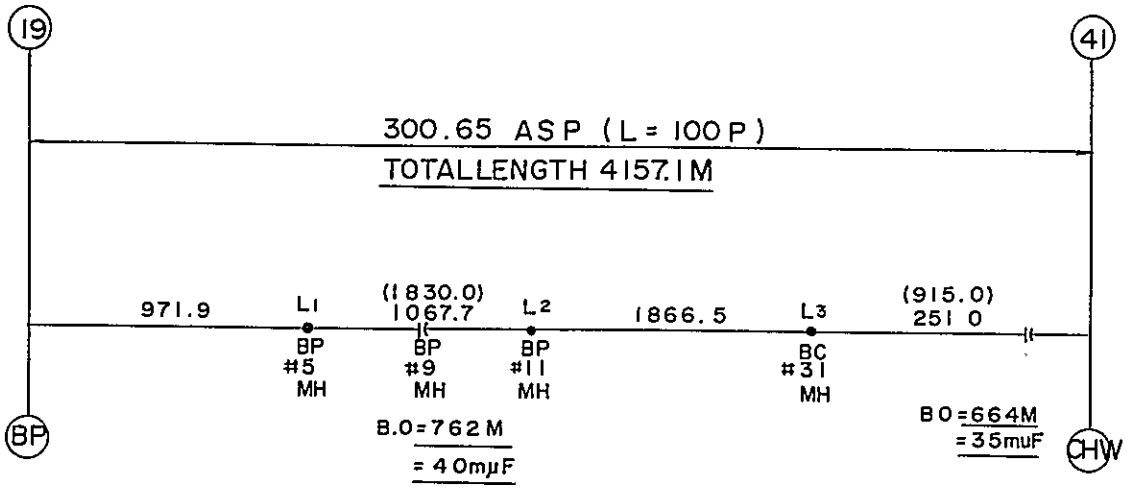


S = 1 829.4

$$\frac{S_0 - S}{S_0} \times 100 = 0.03\ \%$$

NO. 3

BPEX ~ CHWEX.

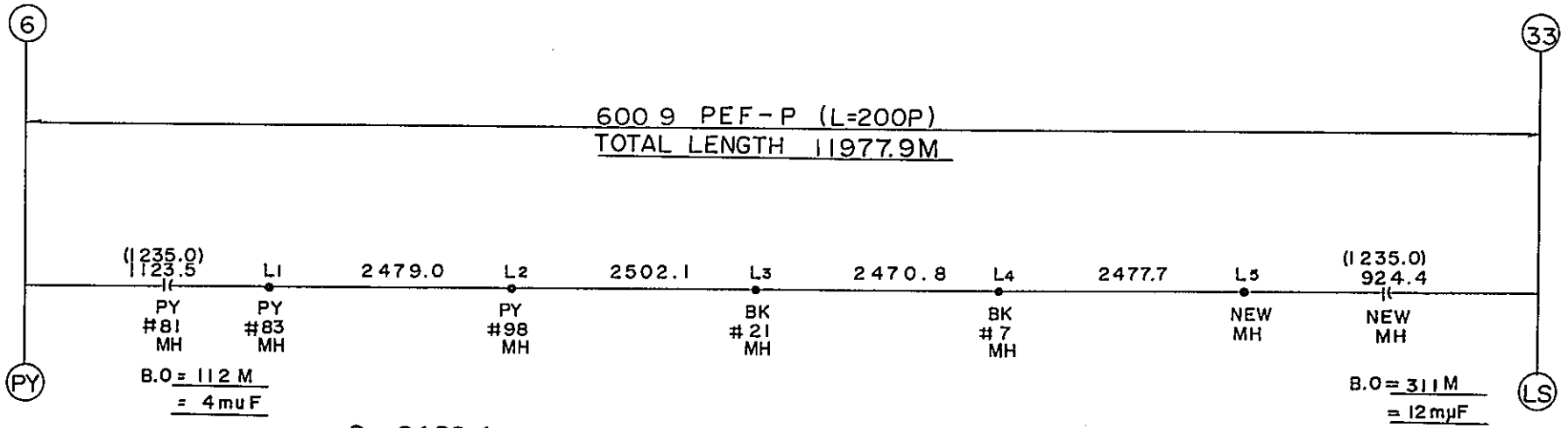


S = 1848 3

$$\frac{S - S_0}{S_0} \times 100 = 1.0\ \%$$

$$\frac{S - S_1}{S} \times 100 = 1.0\ \%$$

PYEX ~ LSEX

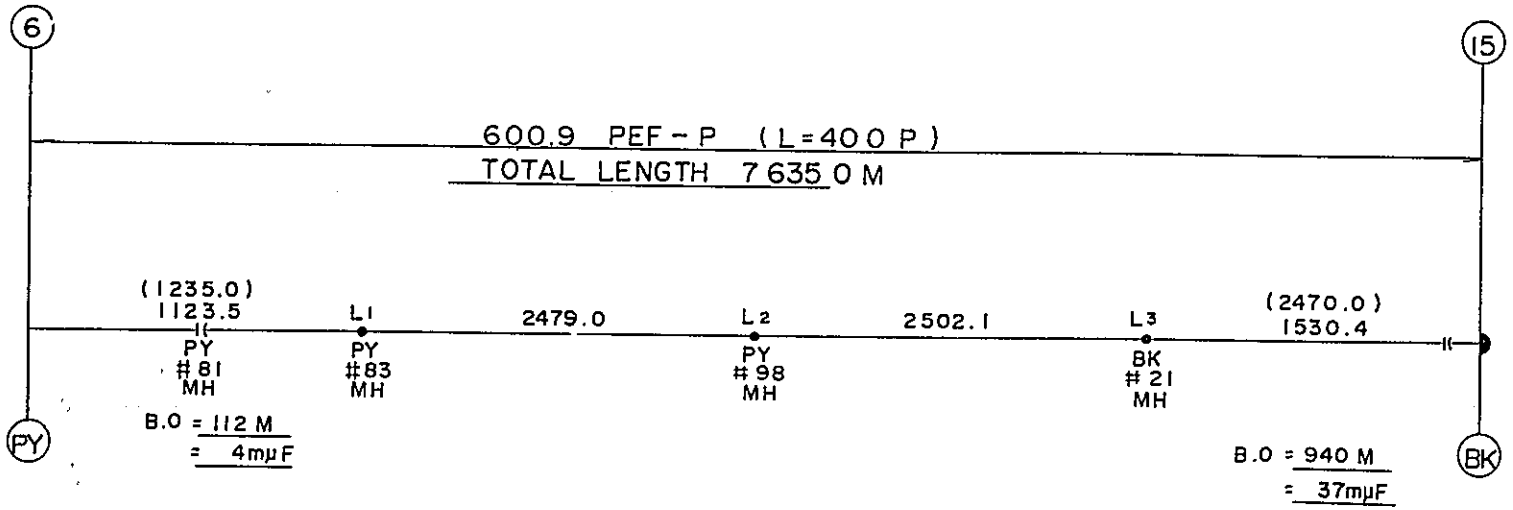


$$S = 2482.4$$

$$\frac{S - S_0}{S_0} \times 100 = 0.5\ \%$$

$$\frac{S - S_1}{S} \times 100 = 0.8\ \%$$

PYEX ~ BKEX

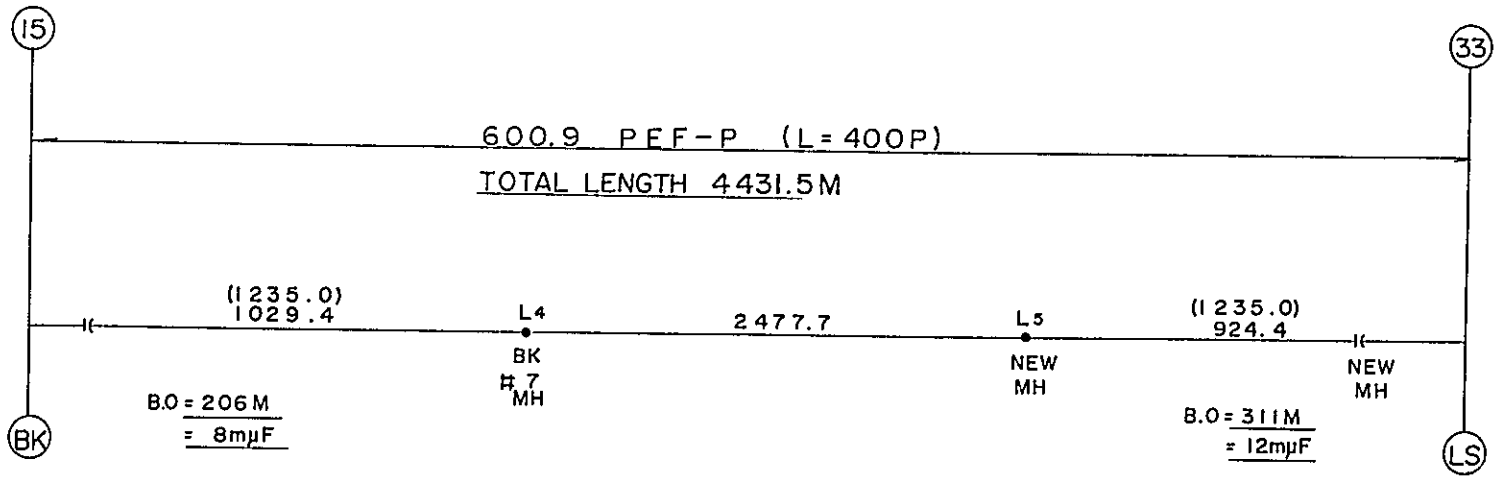


$S = 2486.0$

$$\frac{So - S}{So} \times 100 = 0.6\ \%$$

$$\frac{S - Si}{S} \times 100 = 0.6\ \%$$

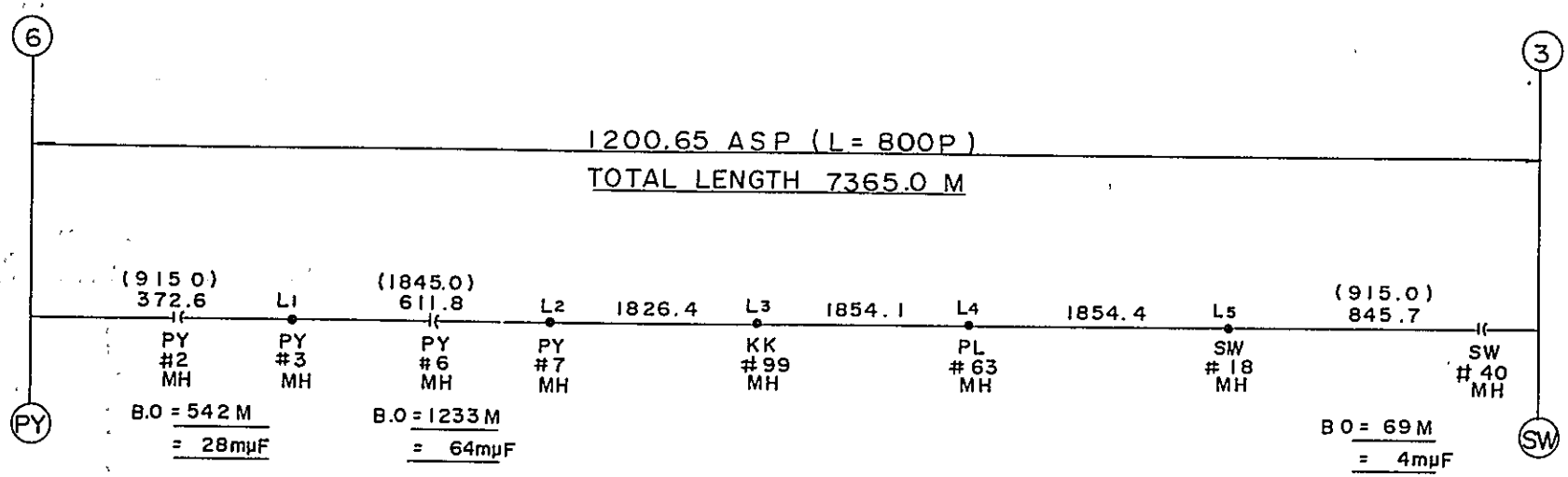
BKEX ~ LSEX



S = 24777

$$\frac{So - S}{So} \times 100 = 0.3\ \%$$

PYEX ~ SWEX

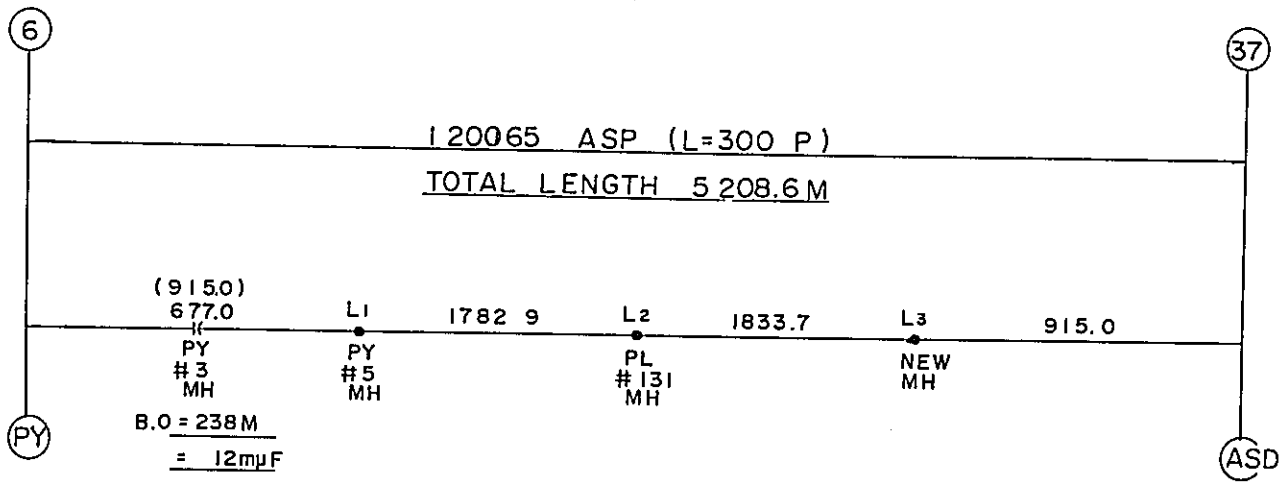


S = 1845.0

$$\frac{S - S_o}{S_o} \times 100 = 0.8\ \%$$

$$\frac{S - S_1}{S} \times 100 = 1.0\ \%$$

PYEX ~ ASDEX

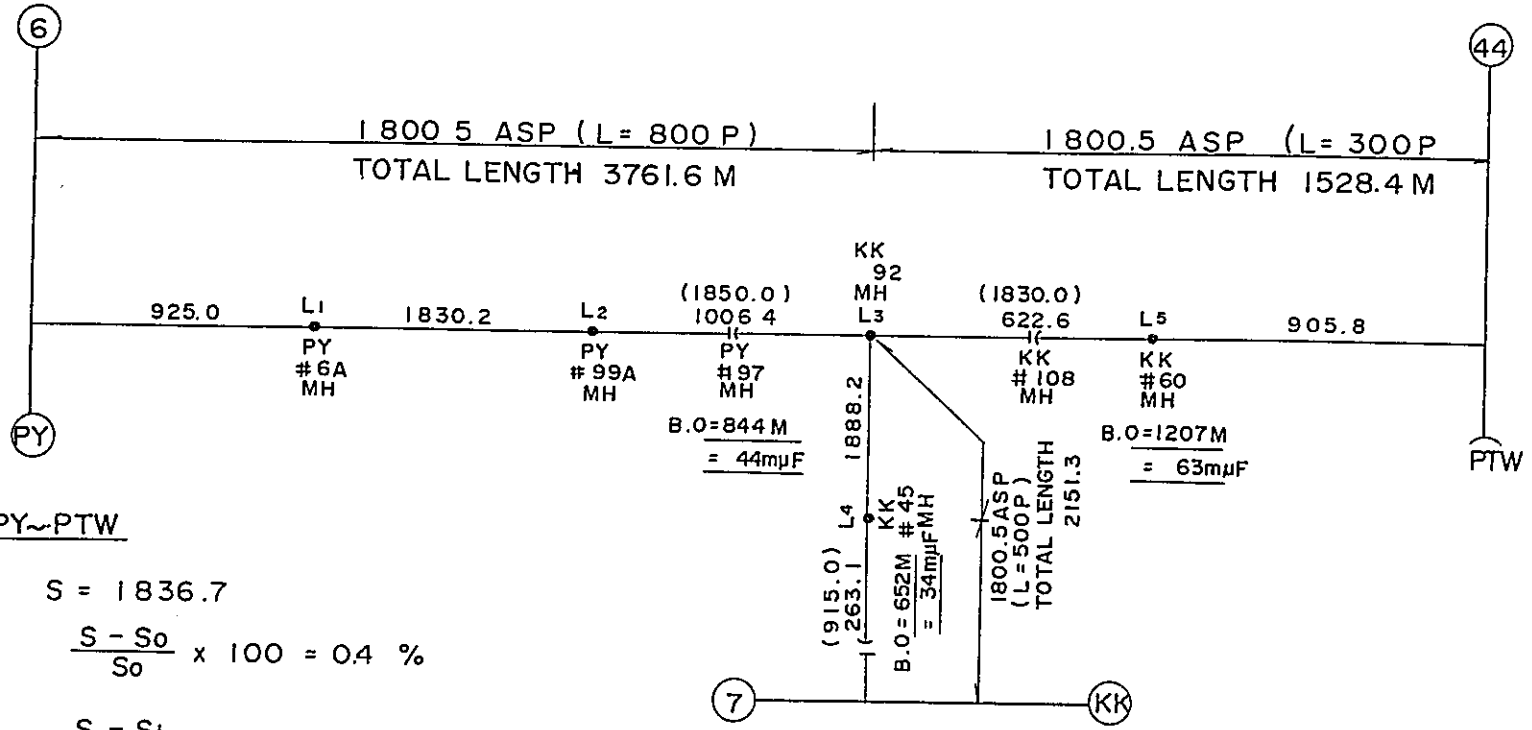


S = 1 808.3

$$\frac{So - S}{So} \times 100 = 1.2\ \%$$

$$\frac{S - Si}{S} \times 100 = 1.4\ \%$$

PYEX ~ KKEX ~ PTWKK



PY~PTW

S = 1836.7

$$\frac{S - So}{So} \times 100 = 0.4\ \%$$

$$\frac{S - Si}{S} \times 100 = 0.7\ \%$$

PY~KK

S = 1856.1

$$\frac{S - So}{So} \times 100 = 1.4\ \%$$

$$\frac{S - Si}{S} \times 100 = 1.8\ \%$$

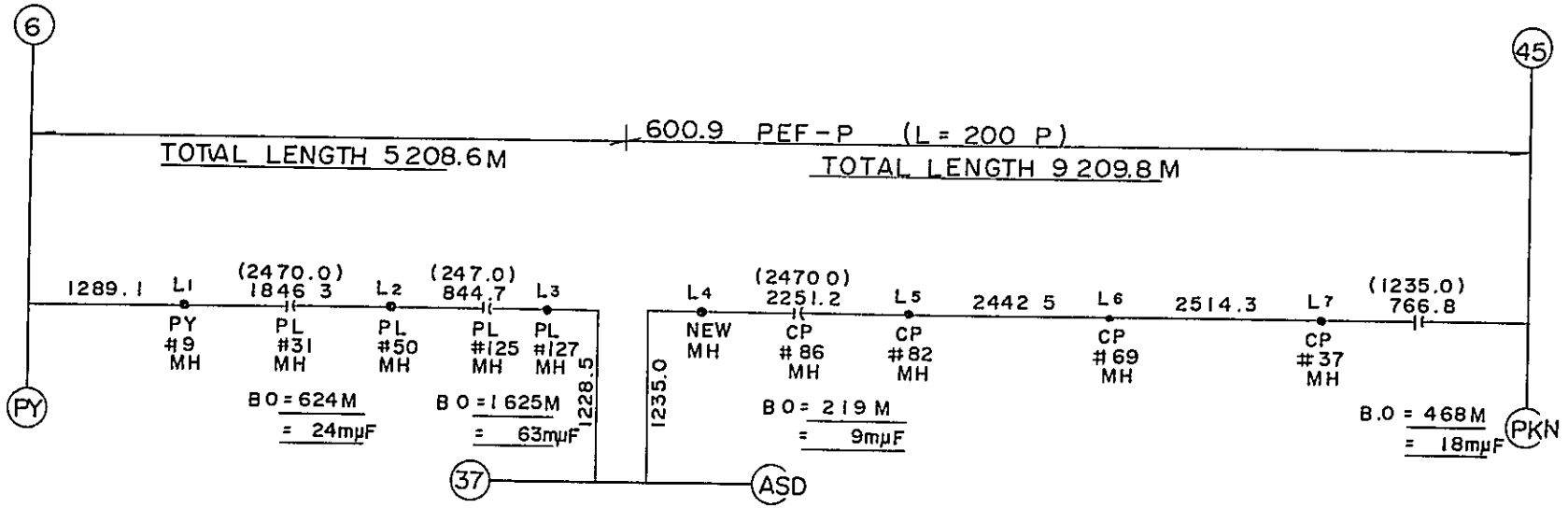
KK~PTW

S = 1859.4

$$\frac{S - So}{So} \times 100 = 1.6\ \%$$

$$\frac{S - Si}{S} \times 100 = 1.6\ \%$$

PYEX ~ ASDEX ~ PKNEX



$S = 2470$

$$\frac{S - S_o}{S_o} \times 100 = 0\ \%$$

$$\frac{S - S_i}{S} \times 100 = 0\ \%$$

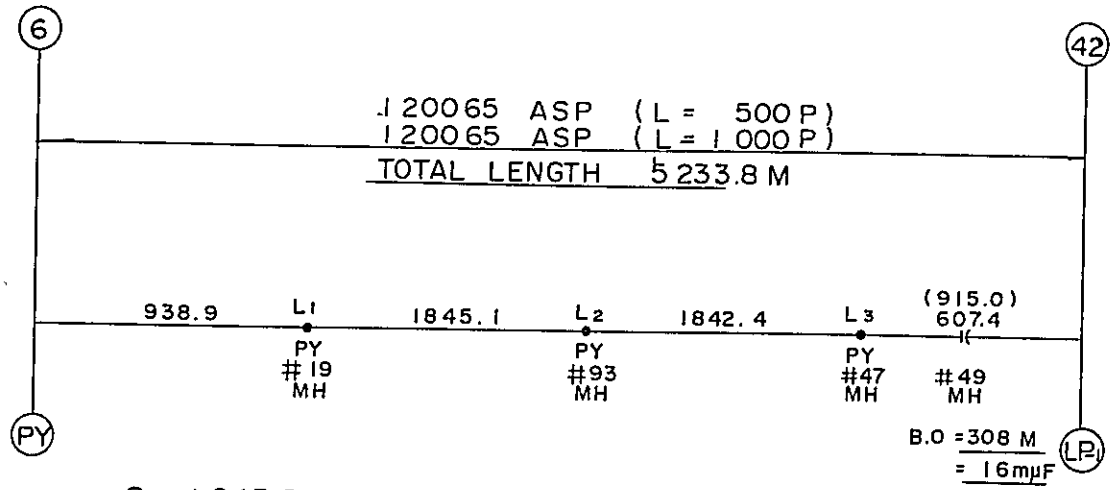
$S \doteq 2475.6$

$$\frac{S - S_o}{S_o} \times 100 = 0.2\ \%$$

$$\frac{S - S_i}{S} \times 100 = 13\ \%$$

NO. 11

PYEX ~ LPEX

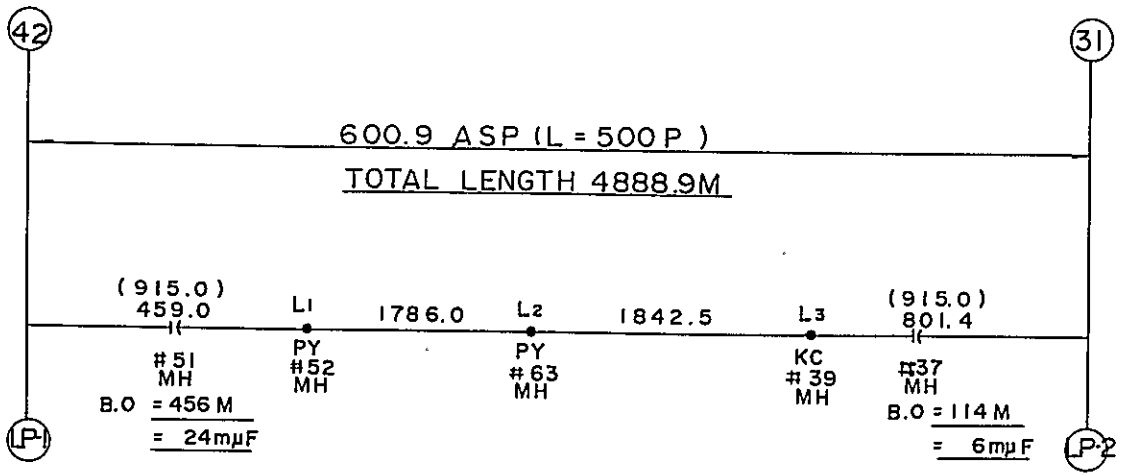


$S = 1843.8$

$$\frac{S - S_o}{S_o} \times 100 = 0.8\ \%$$

$$\frac{S - S_i}{S} \times 100 = 0.1\ \%$$

LP-1 EX ~ LP-2 EX

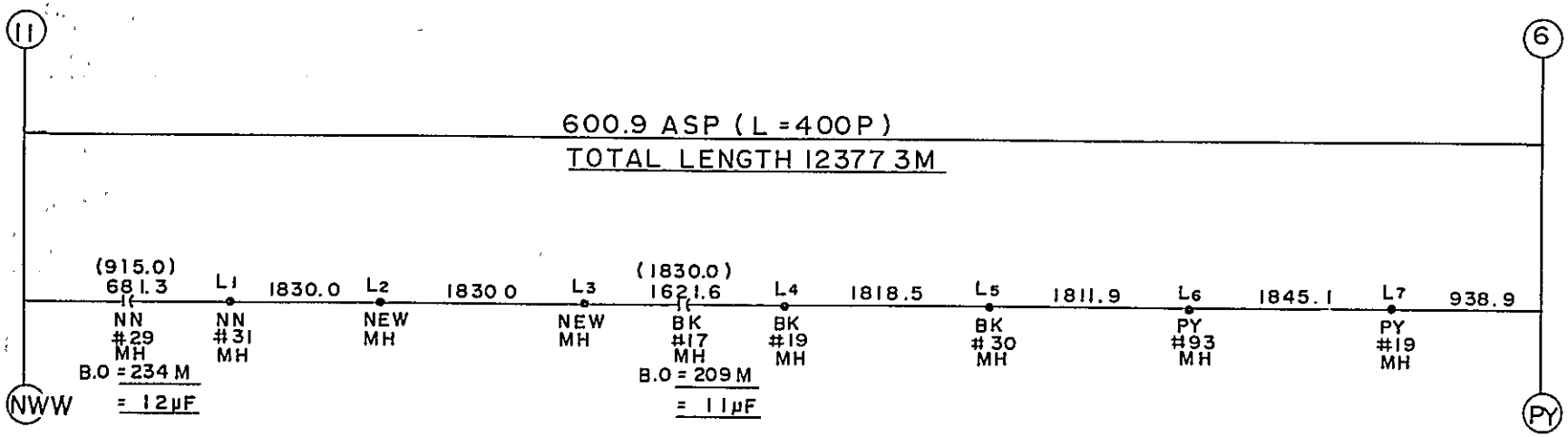


S = 1814.3

$$\frac{S_0 - S}{S_0} \times 100 = 0.9\,\%$$

$$\frac{S - S_1}{S} \times 100 = 1.5\,\%$$

PYEX ~ NWWEX

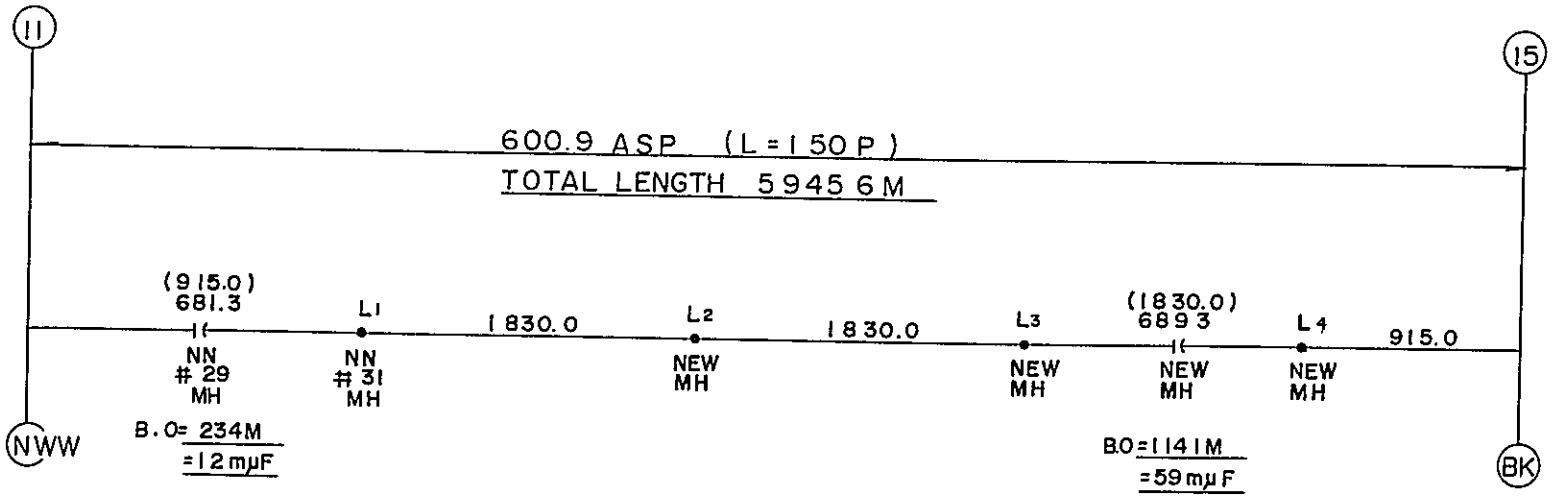


S = 1827.6

$$\frac{S_0 - S}{S_0} \times 100 = 1.3\%$$

$$\frac{S - S_1}{S} \times 100 = 1.0\%$$

BKEX ~ NWWEX

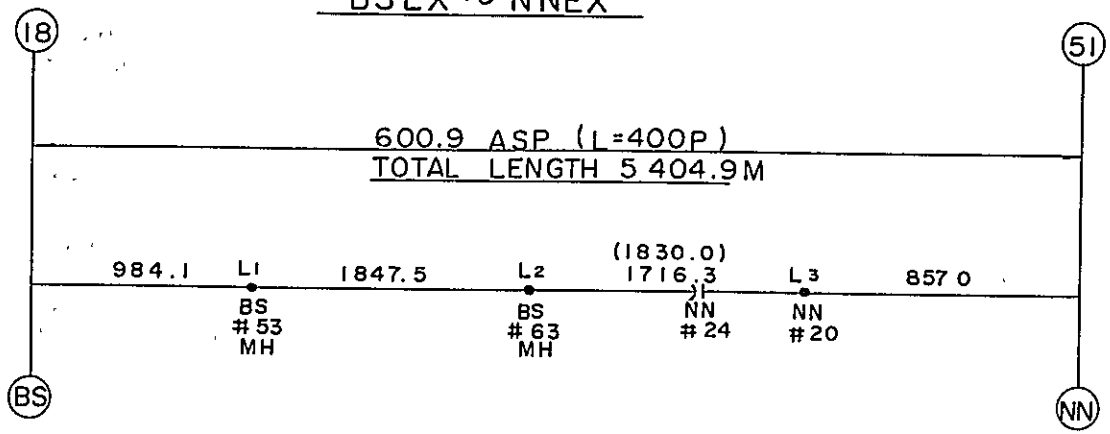


S = 1830.0

$$\frac{S - So}{So} \times 100 = 0\ \%$$

$$\frac{S - Si}{S} \times 100 = 0\ \%$$

BSEX ~ NNEX



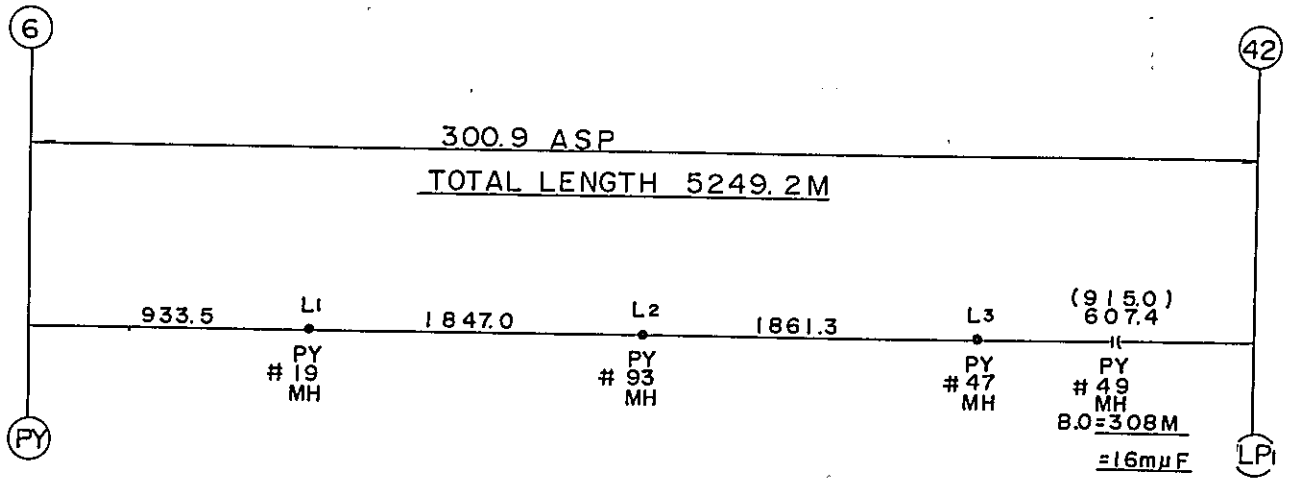
B.O = 114 M
= 6mμF

S ≒ 1838.8

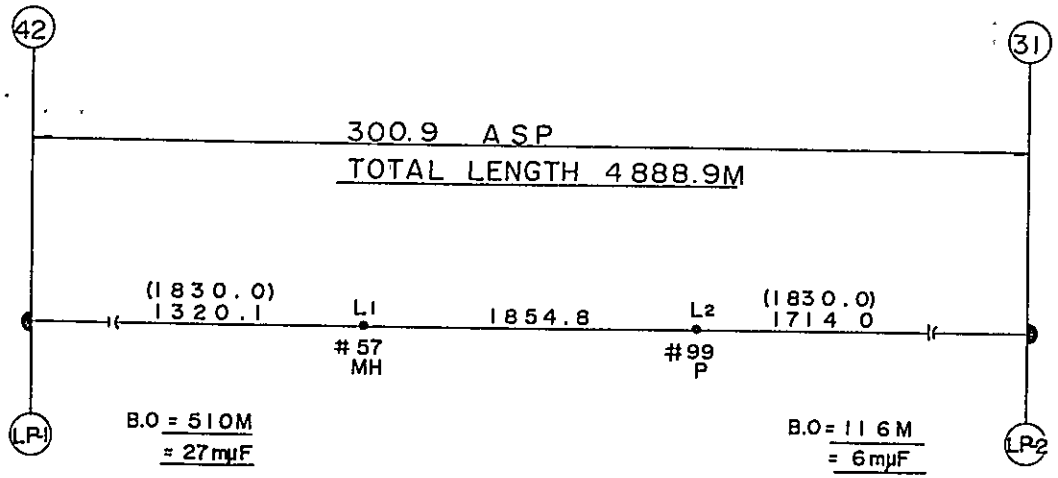
$$\frac{S - So}{So} \times 100 = 0.5\ \%$$

$$\frac{S - Si}{S} \times 100 = 0.2\ \%$$

PYEX ~ KCEX (LP1, TURNOVER)

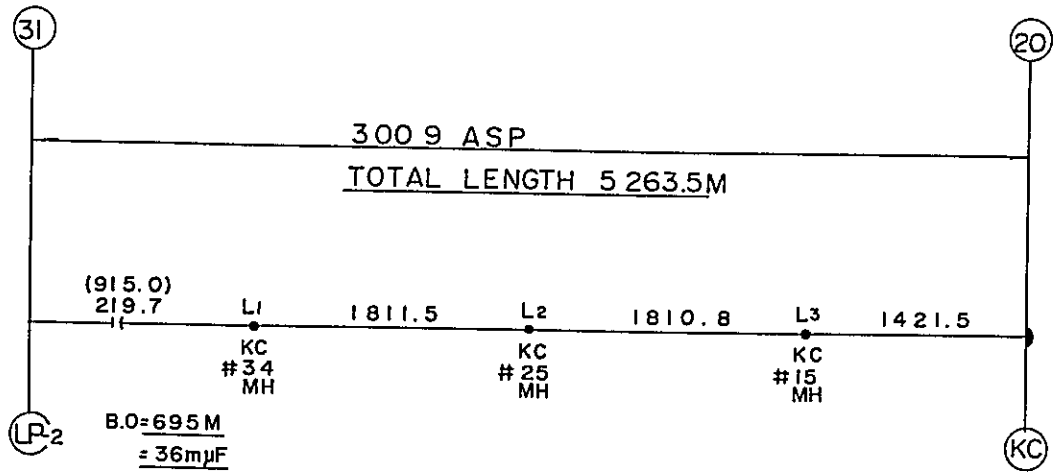


PYEX.~KCEX (LP1. LP2. TURN OVER)

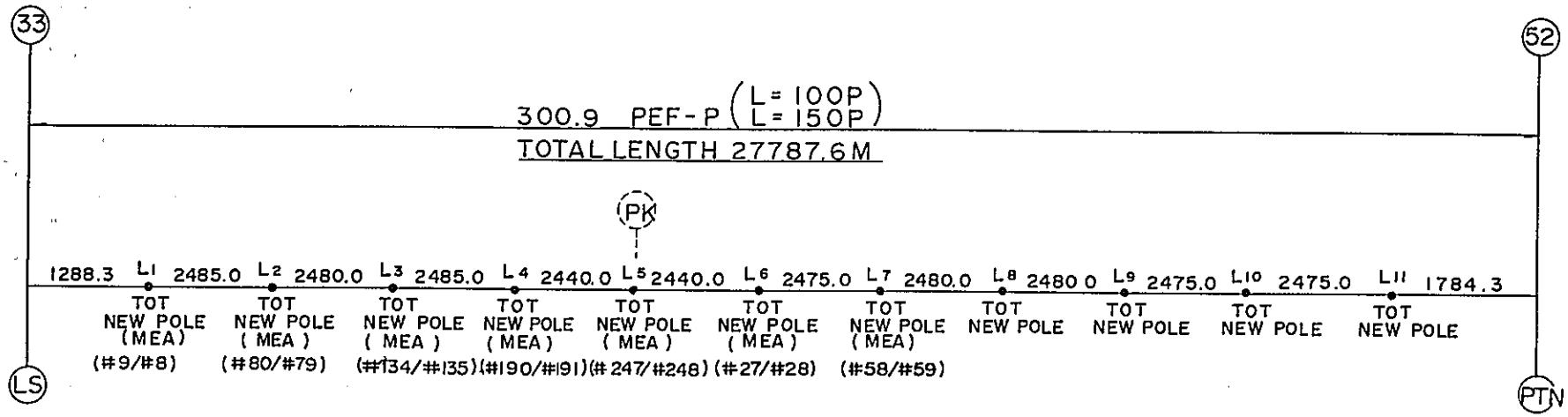


NO. 18

PYEX ~ KCEX (LP₂. TURN OVER)



LSEX ~ PTNEX

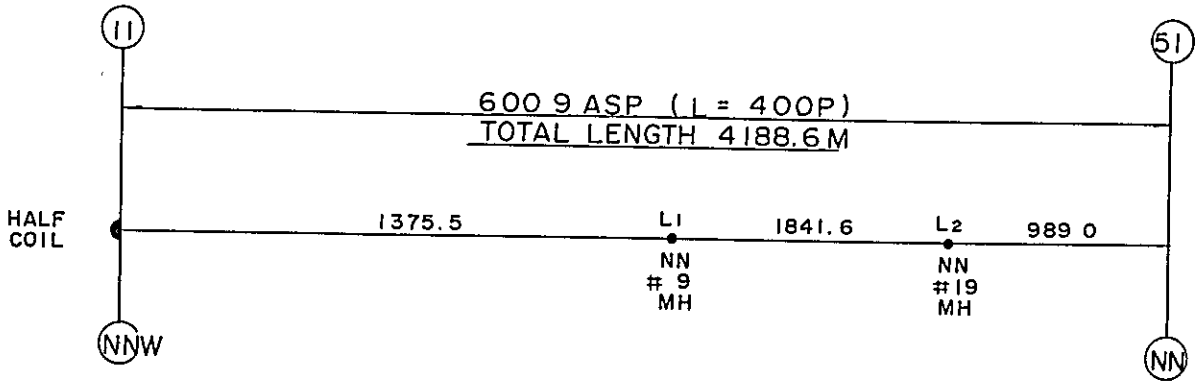


$S = 2471.5$

$$\frac{S - S_0}{S_0} \times 100 = 0.1\,\%$$

$$\frac{S - S_i}{S} \times 100 = 1.2\,\%$$

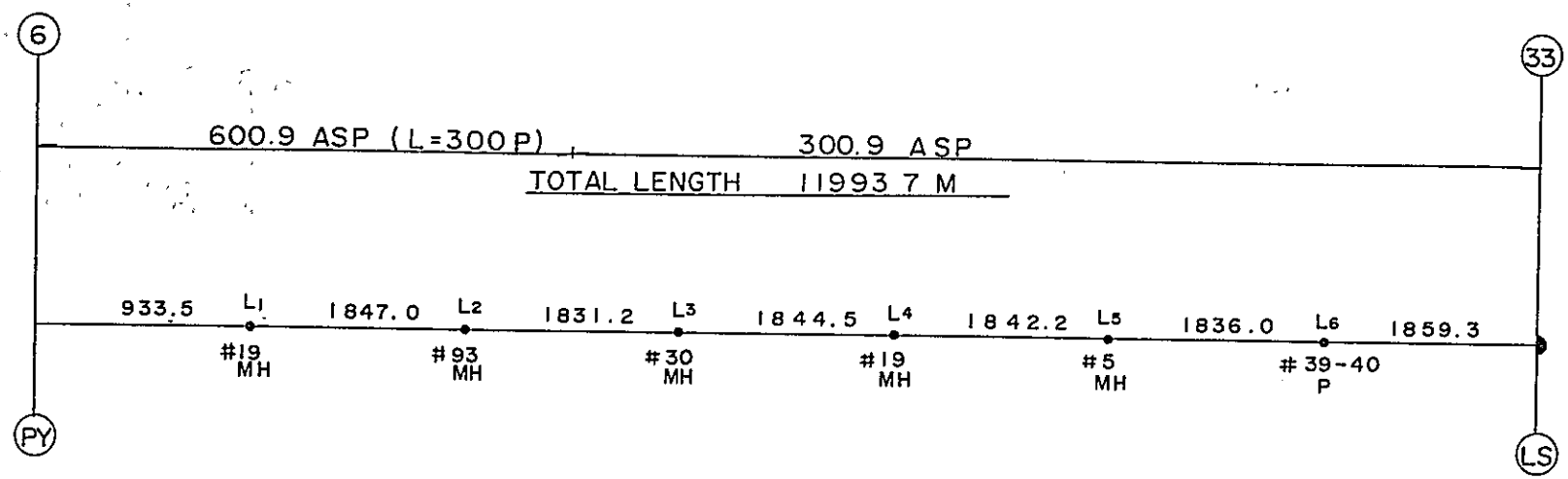
NWWEX ~ NNEX



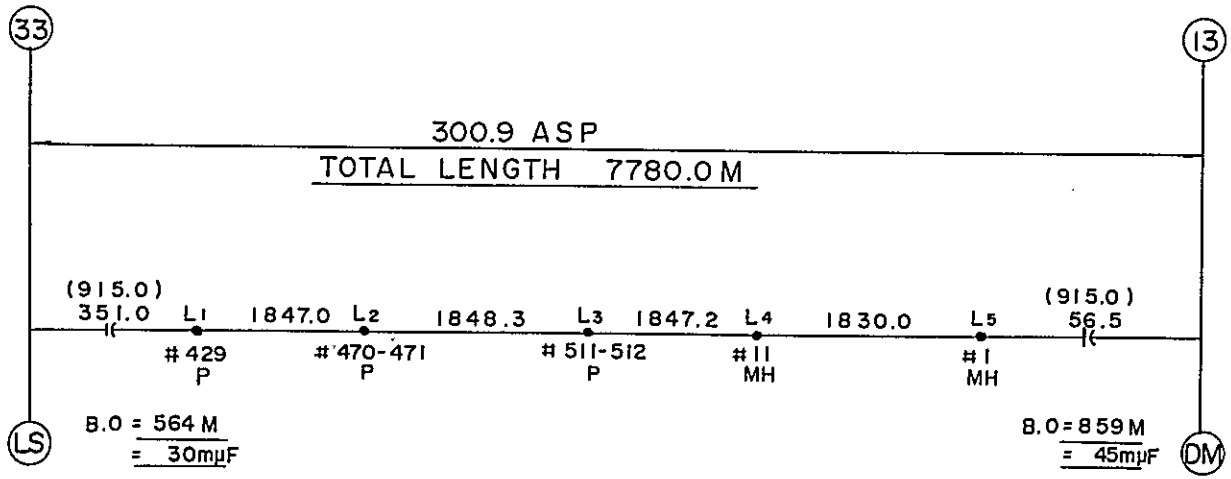
S = 1841.6

$$\frac{S - S_o}{S_o} \times 100 = 0.6\ \%$$

PYEX ~ DMEX (LS TURN OVER)



PYEX ~ DMEX (LS TURN OVER)

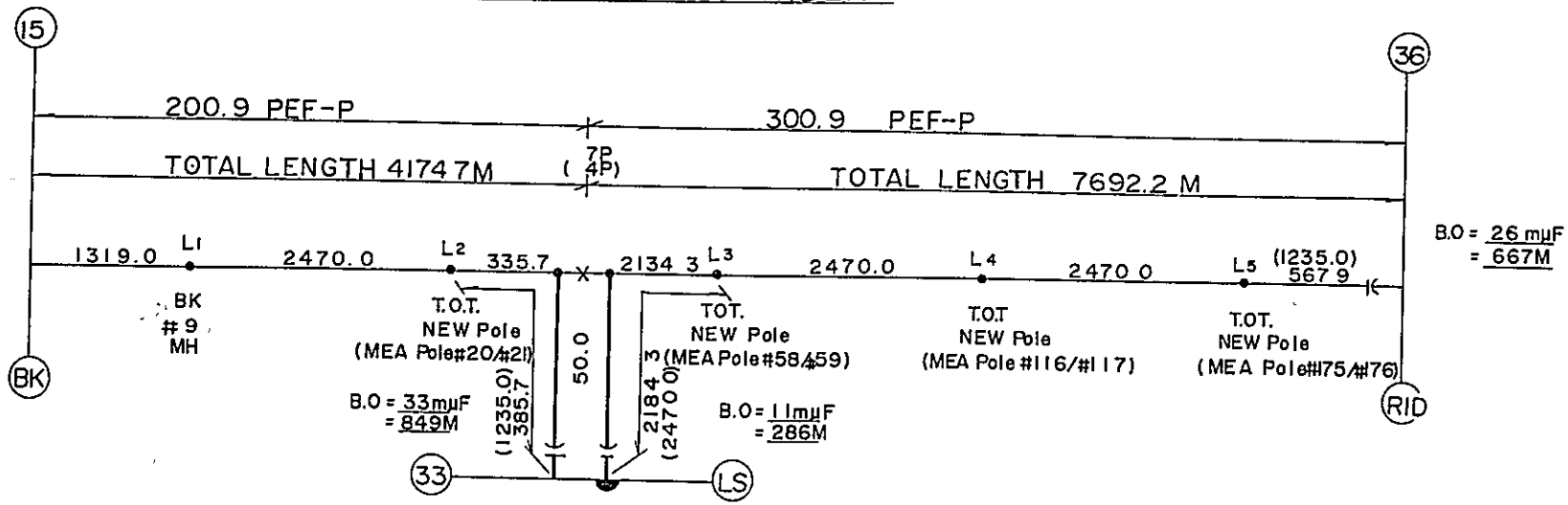


S = 1843.1

$$\frac{S - S_0}{S_0} \times 100 = 0.7\ \%$$

$$\frac{S - S_1}{S} \times 100 = 0.7\ \%$$

BKEX~LSEX~RIDEX



$S = 2470.0$

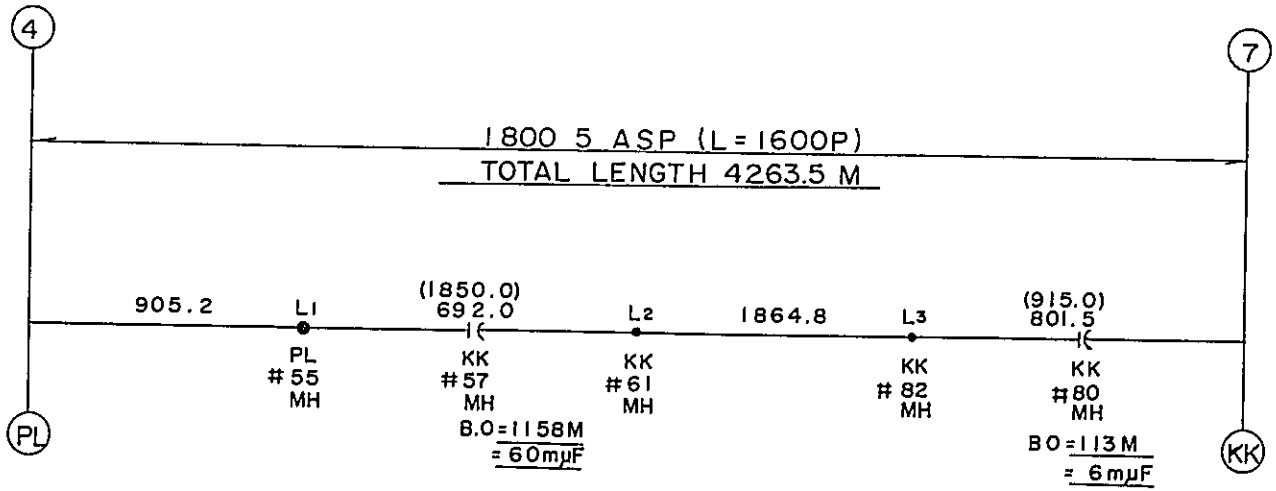
$$\frac{So - S}{So} \times 100 = 0\ \%$$

$$\frac{S - Si}{S} \times 100 = 0\ \%$$

PHASE II

MODIFICATION AND
LSEX. TURN OVER

PLEX ~ KKEX

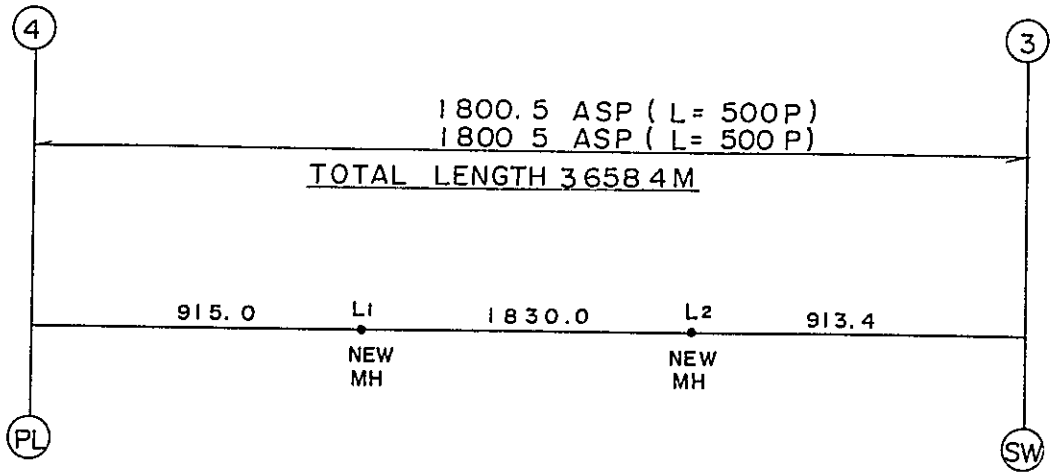


S = 1857.4

$$\frac{S - So}{So} \times 100 = 1.5\ \%$$

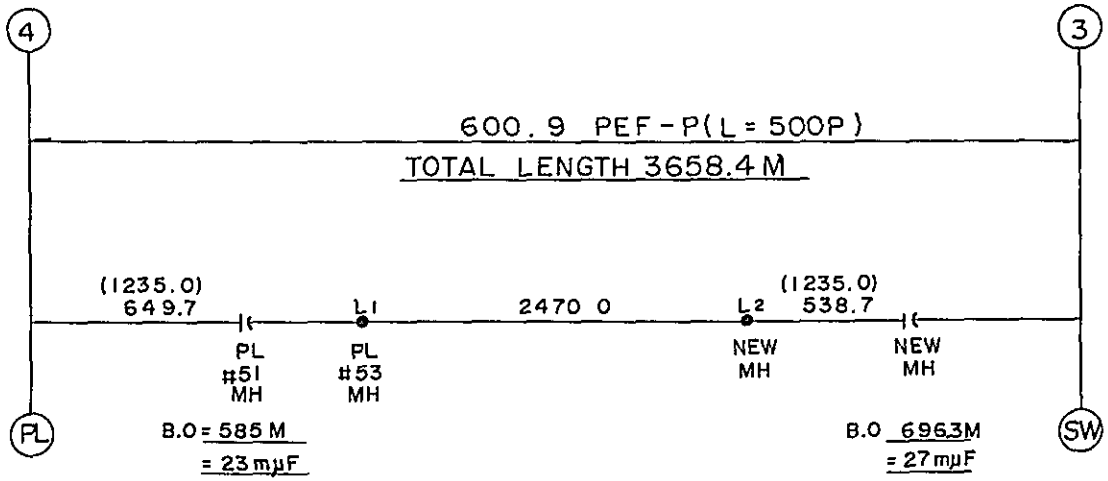
$$\frac{S - Si}{S} \times 100 = 0.4\ \%$$

PLEX~SWEX



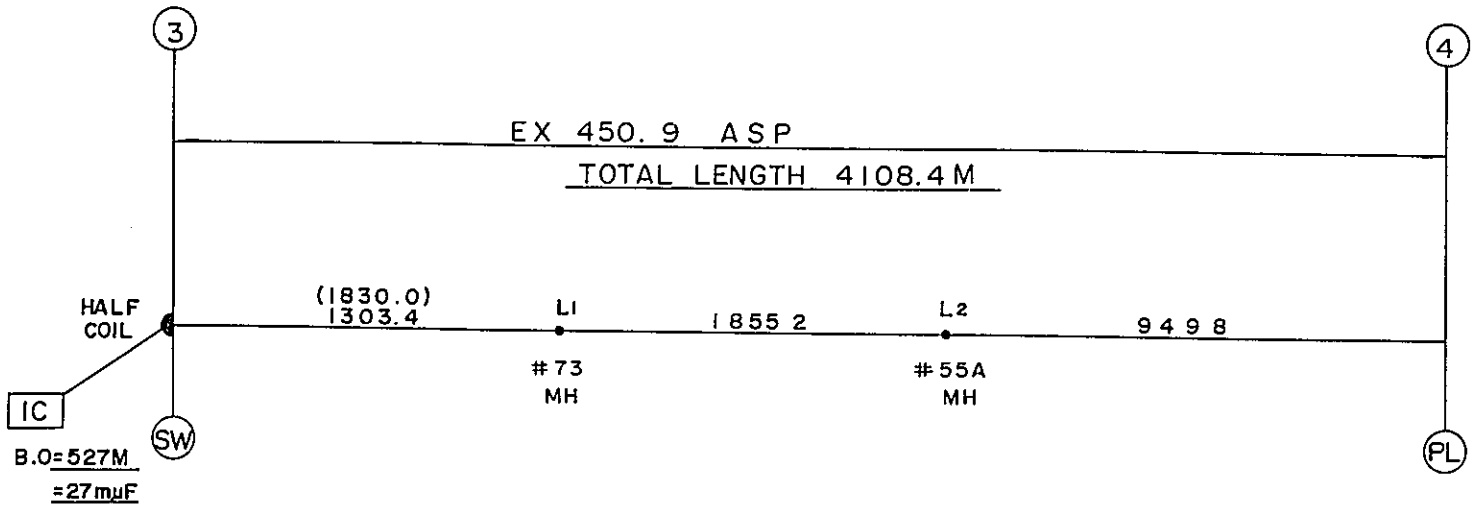
NO. 26

PLEX ~ SWEX



NO. 27

PLEX ~ SWEX

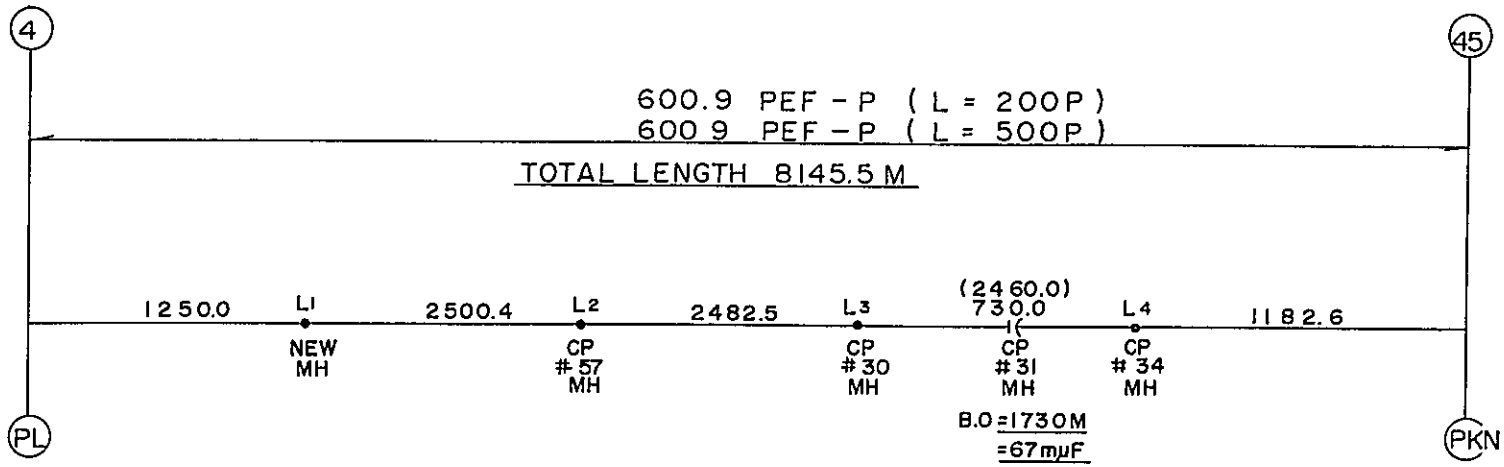


S = 1855 2

$$\frac{S - S_o}{S_o} \times 100 = 1.4\ \%$$

NO. 28

PLEX ~ PKNEX

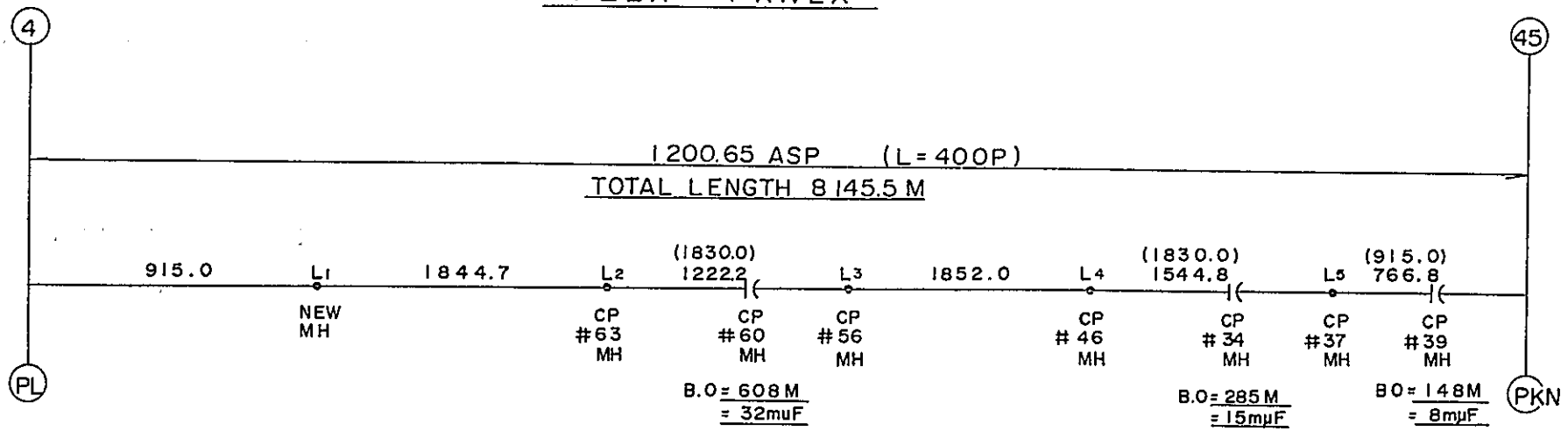


S = 2481.0

$$\frac{S - So}{So} \times 100 = 0.4\ \%$$

$$\frac{S - Si}{S} \times 100 = 0.8\ \%$$

PLEX ~ PKNEX

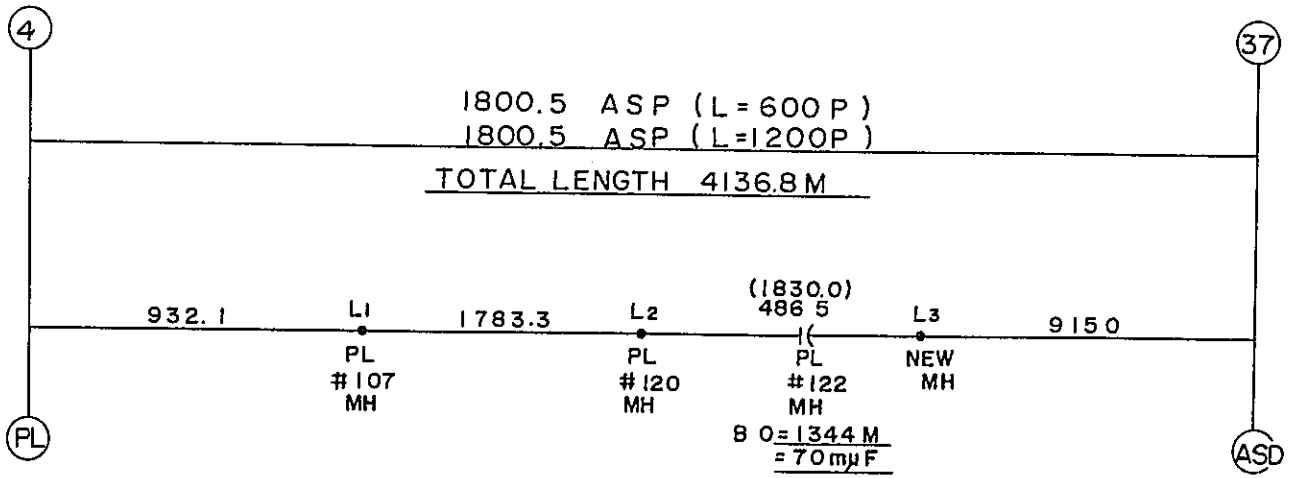


S = 1839.2

$$\frac{S - So}{So} \times 100 = 0.5\ \%$$

$$\frac{S - Si}{S} \times 100 = 0.7\ \%$$

PLEX ~ ASDEX

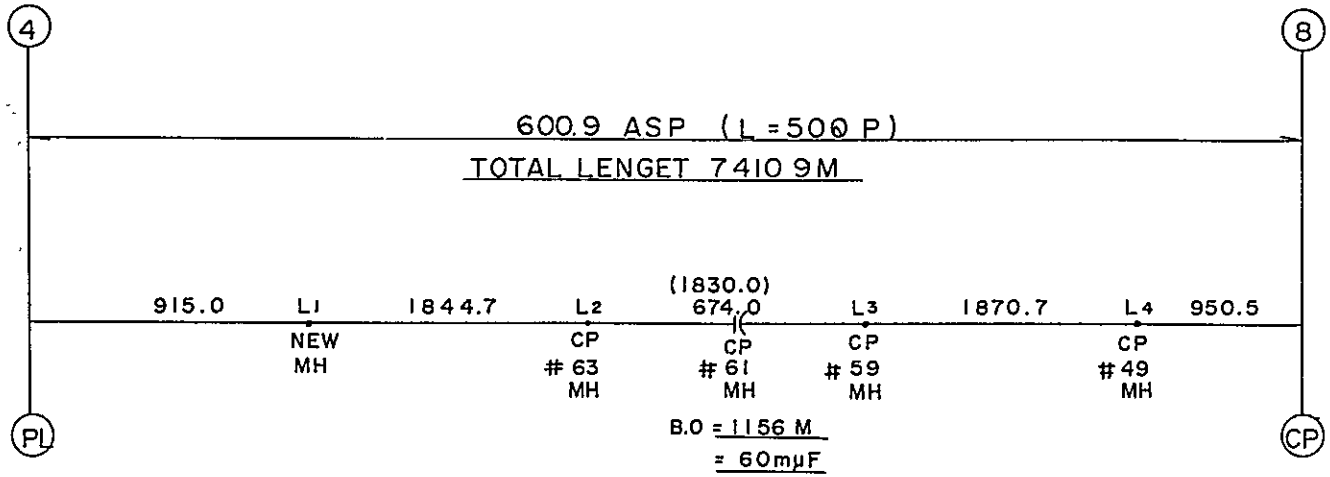


S = 18067

$$\frac{S_0 - S}{S_0} \times 100 = 1.3\ \%$$

$$\frac{S - S_1}{S} \times 100 = 1.3\ \%$$

PLEX ~ CPEX

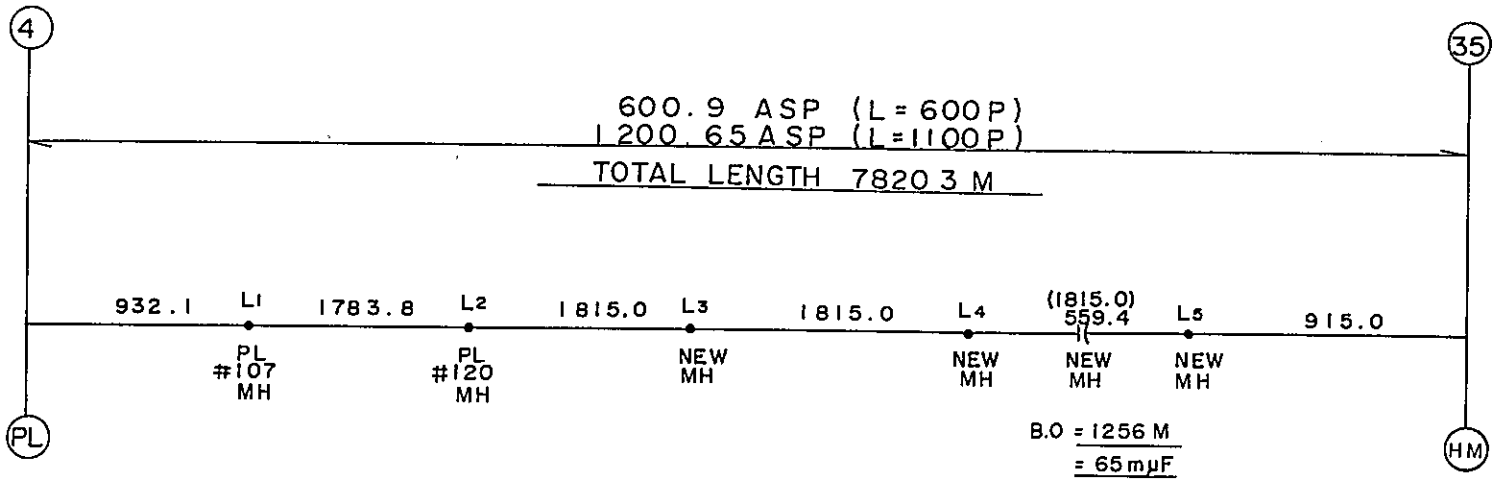


S = 1848.5

$$\frac{S - S_o}{S_o} \times 100 = 1.0\ \%$$

$$\frac{S - S_1}{S} \times 100 = 1.0\ \%$$

PLEX ~ HMEX

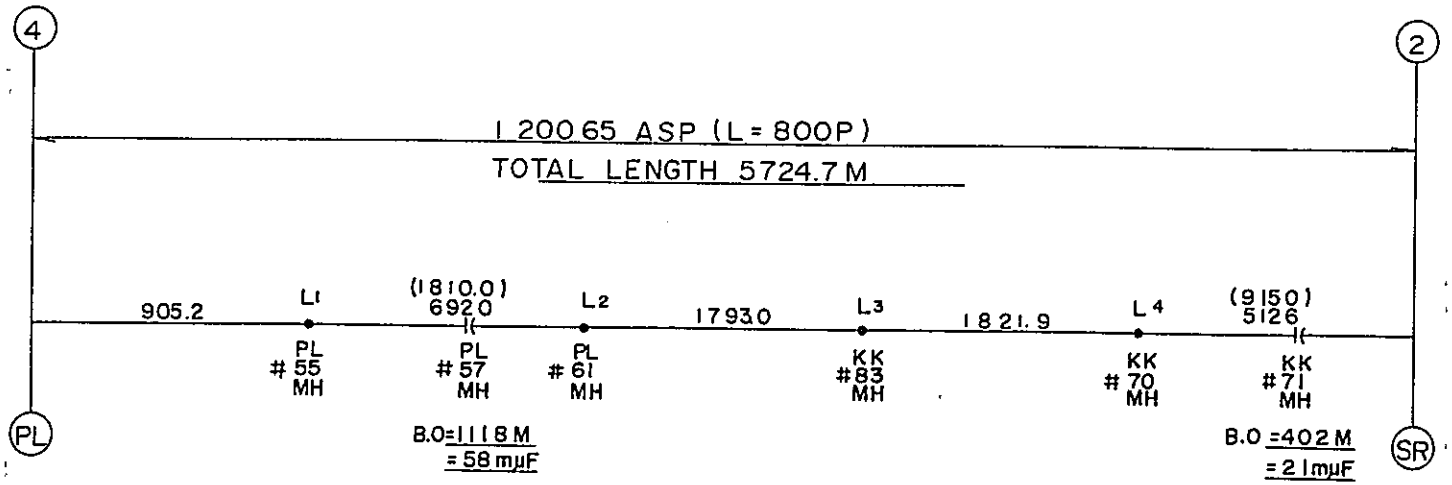


S = 1807.2

$$\frac{So - S}{So} \times 100 = 1.2\ \%$$

$$\frac{S - Si}{S} \times 100 = 0.4\ \%$$

PLEX ~ SREX

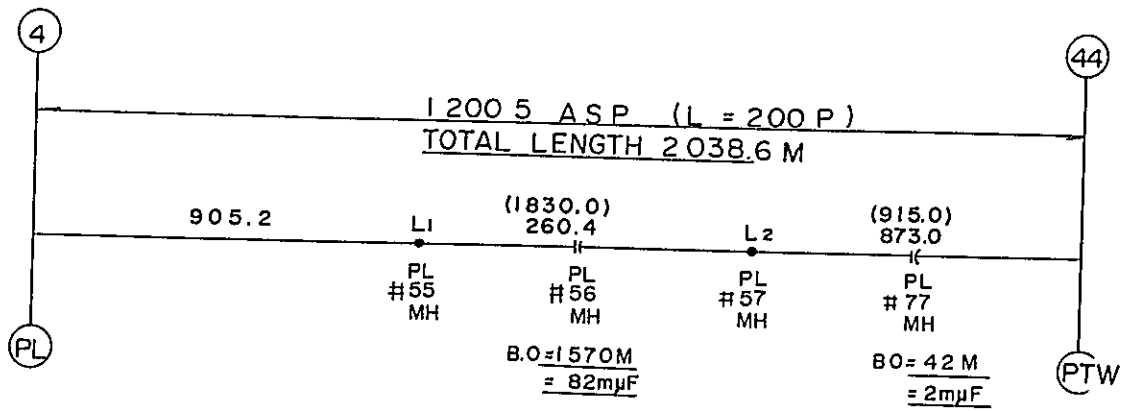


S· = 1808.3

$$\frac{So - S}{So} \times 100 = 1.2\ \%$$

$$\frac{S - Si}{S} \times 100 = 0.8\ \%$$

PLEX ~ PTWEX

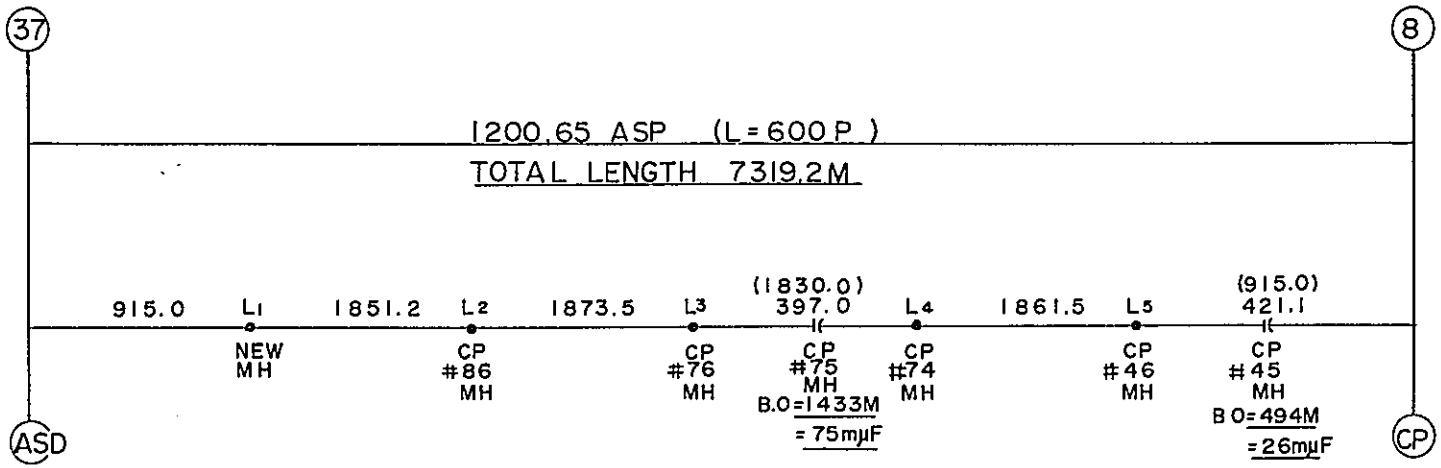


S = 1 830

$$\frac{S - So}{So} \times 100 = 0\ \%$$

$$\frac{S - Si}{S} \times 100 = 0\ \%$$

ASDEX ~ CPEX

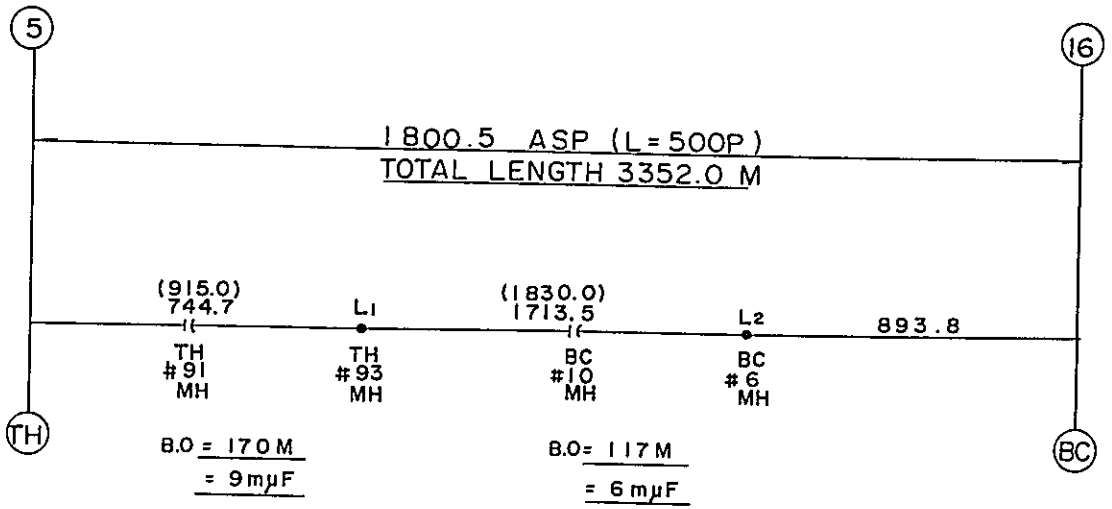


S = 1854.1

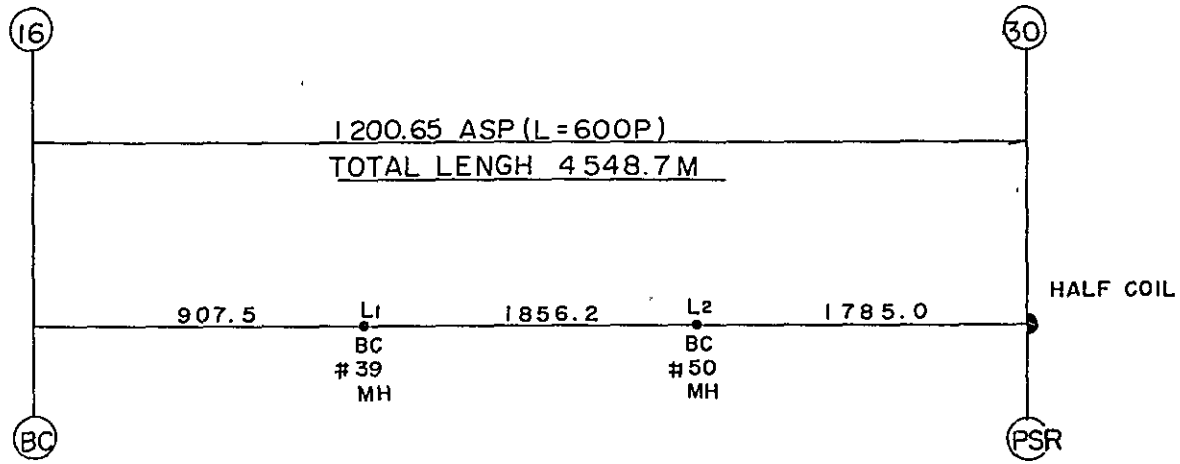
$$\frac{S - S_0}{S_0} \times 100 = 1.3\ \%$$

$$\frac{S - S_1}{S} \times 100 = 1.0\ \%$$

THEX ~ BCEX


5
16
1800.5 ASP (L=500P)
TOTAL LENGTH 3352.0 M
(915.0)
744.7
L1
(1830.0)
1713.5
L2
893.8
TH
#91
MH
TH
#93
MH
BC
#10
MH
BC
#6
MH
TH
BC
B.O = 170 M
= 9 mμF
B.O= 117 M
= 6 mμF

BCEX ~ PSREX

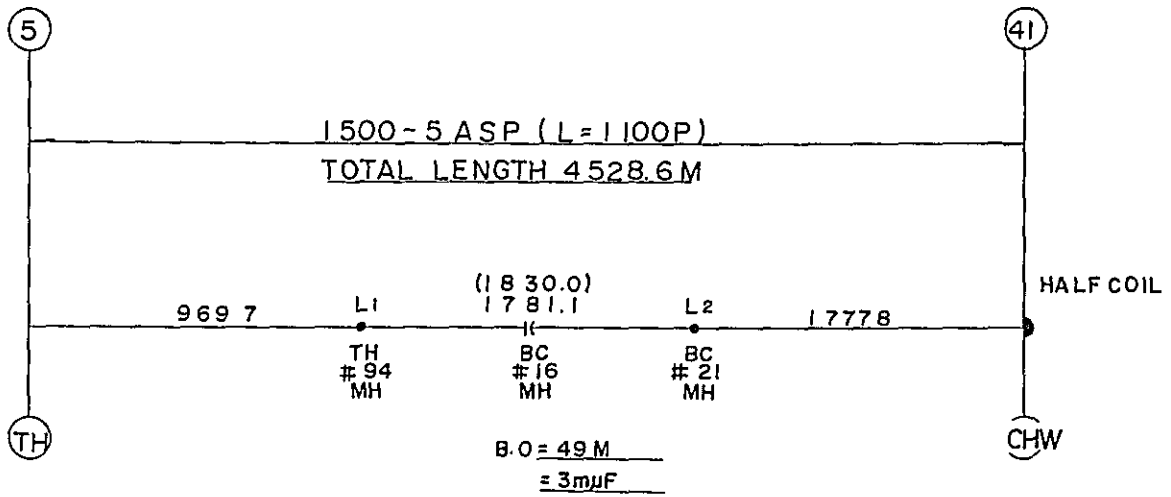


S = 1856.2

$$\frac{So - S}{So} \times 100 = 1.4\ \%$$

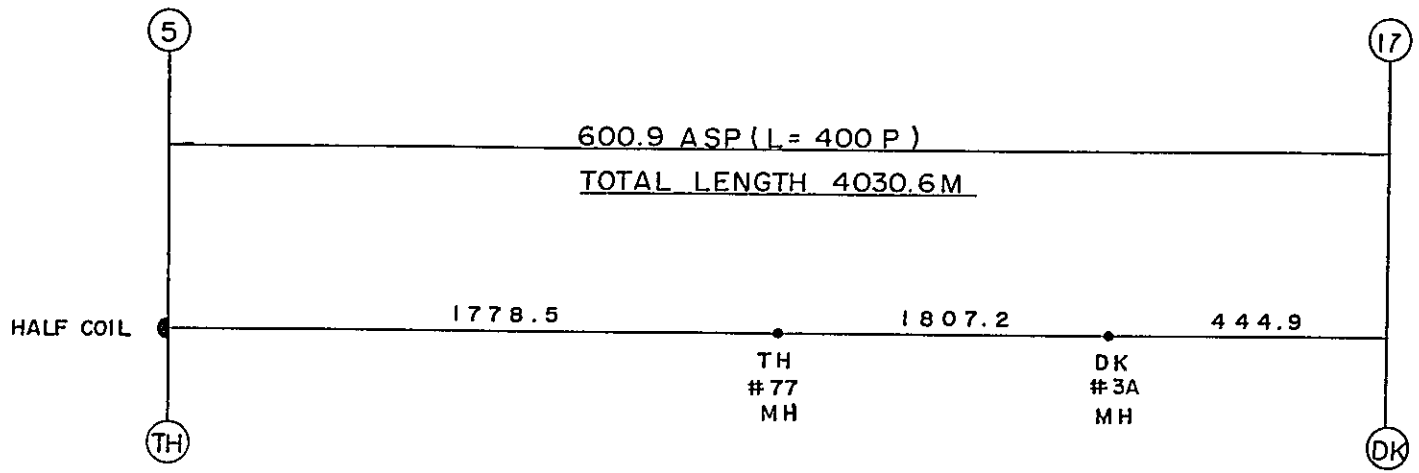
NO. 38

THEX ~ CHWEX



NO. 39

THEX ~ DKEX

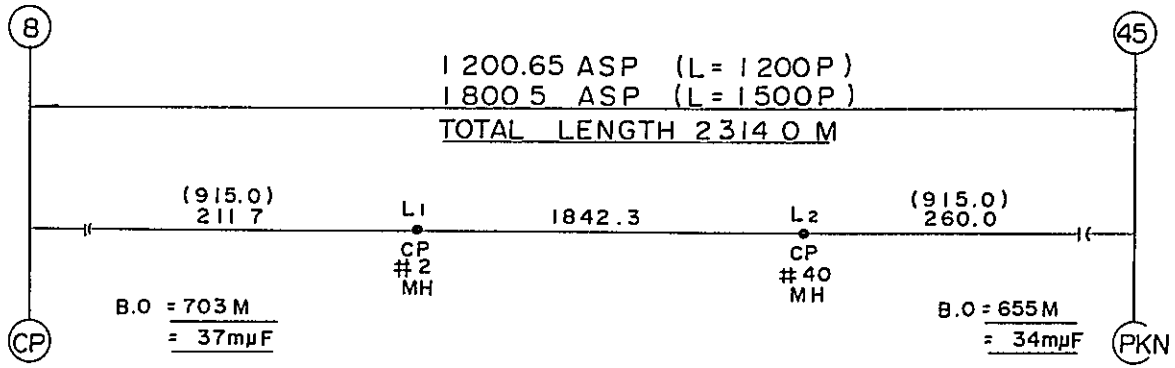


$S = 1807.2$

$$\frac{So - S}{So} \times 100 = 1.2\ \%$$

NO. 40

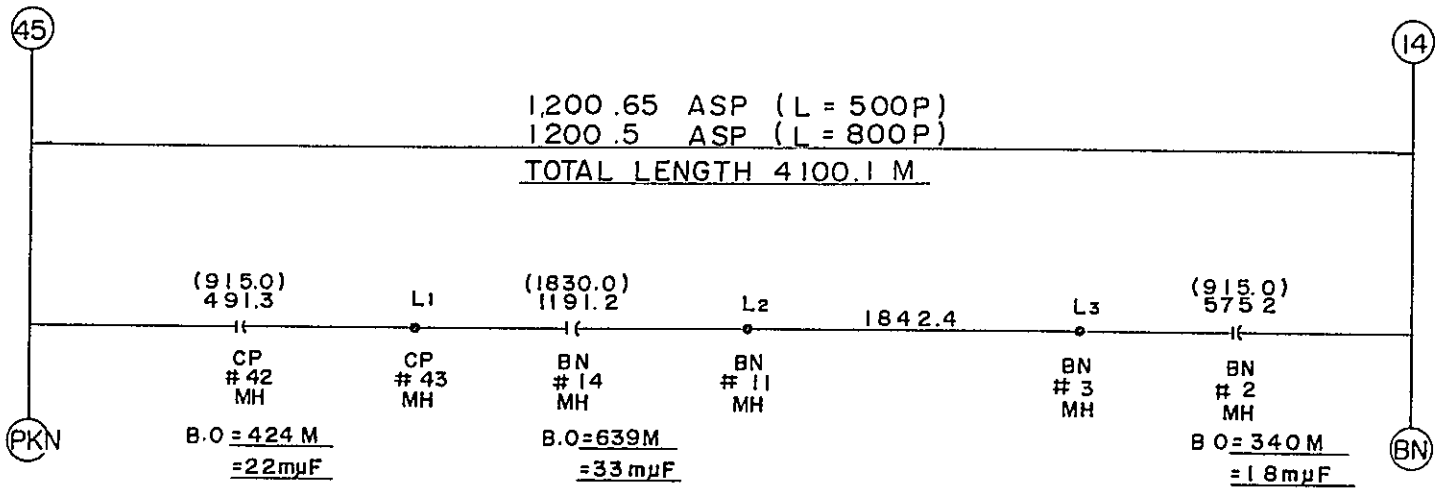
PKNEX ~ CPEX



$S = 1842.3$

$$\frac{S - S_0}{S_0} \times 100 = 0{,}7\ \%$$

PKNEX ~ BNEX

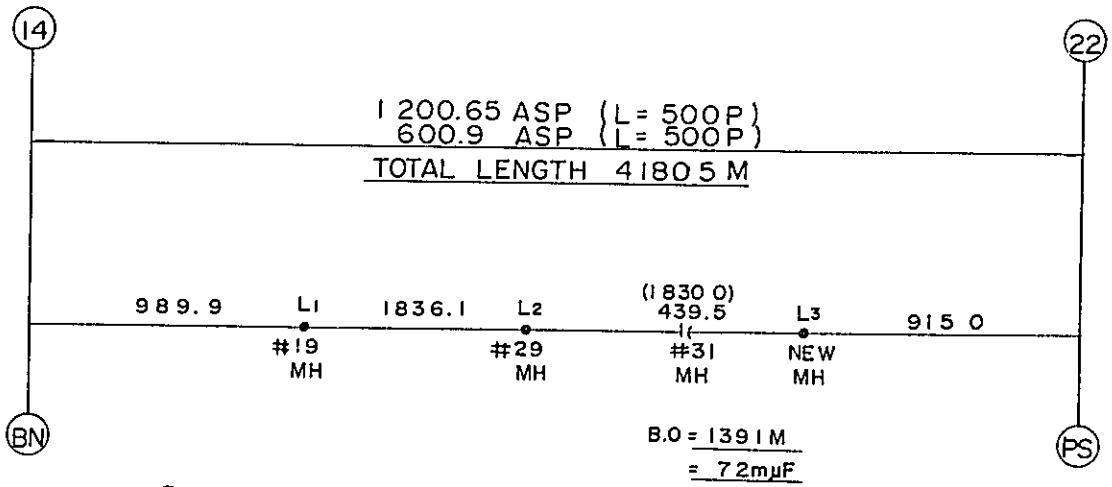


S = 1836.2

$$\frac{S - S_o}{S_o} \times 100 = 0.3\%$$

$$\frac{S - S_1}{S} \times 100 = 0.3\%$$

BNEX ~ PSEX

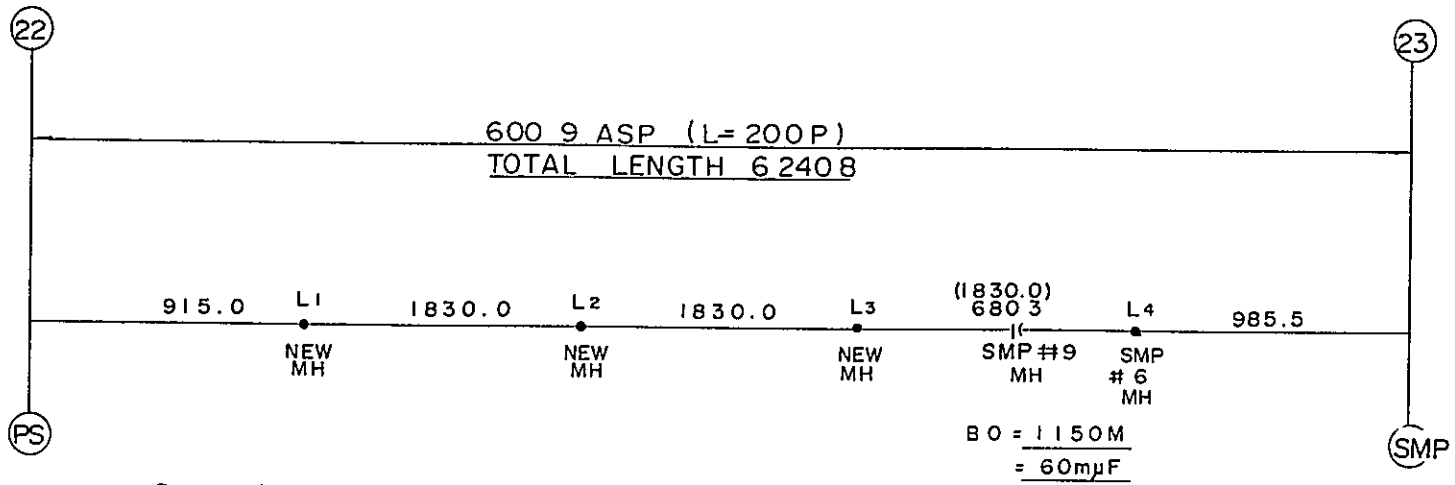


S = 1 833.1

$$\frac{S - So}{So} \times 100 = 0.2\ \%$$

$$\frac{S - Si}{S} \times 100 = 0.2\ \%$$

PSEX ~ SMPEX

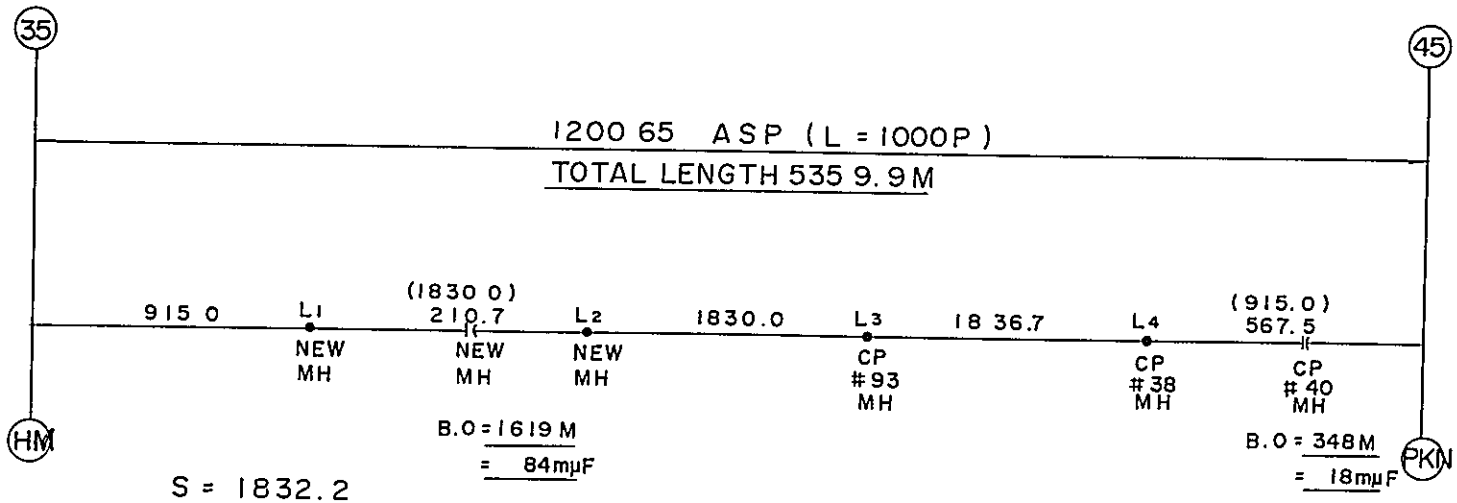


S = 1830

$$\frac{S - So}{So} \times 100 = 0\ \%$$

$$\frac{S - Si}{S} \times 100 = 0\ \%$$

PKNEX ~ HMEX

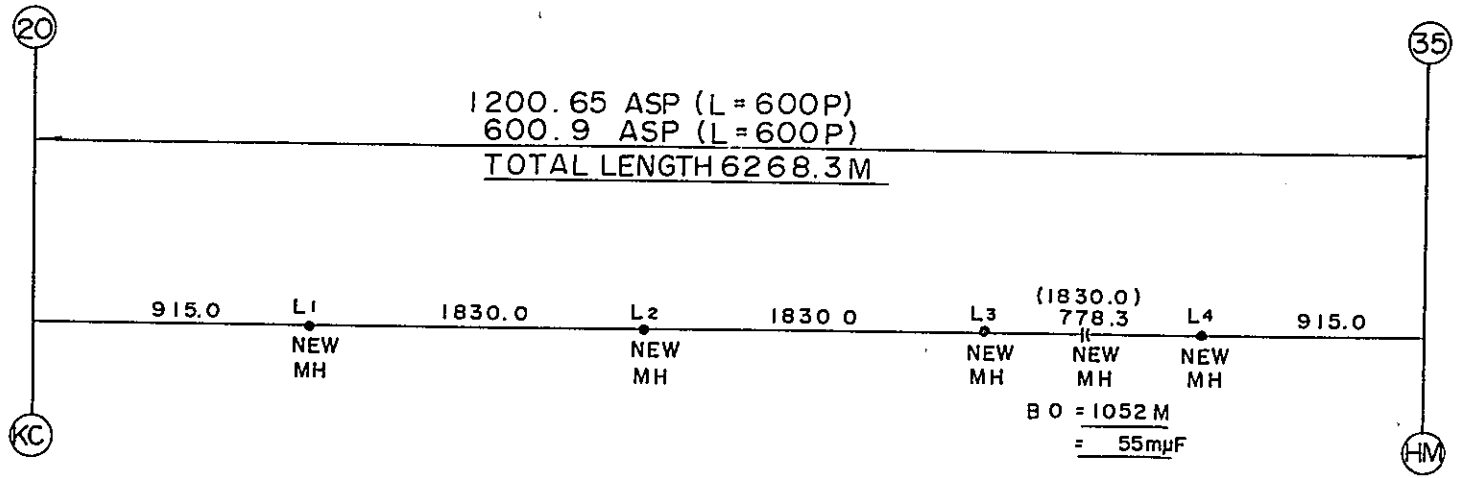


$S = 1832.2$

$$\frac{S - S_0}{S_0} \times 100 = 0.1\%$$

$$\frac{S - S_1}{S} \times 100 = 0.2\%$$

HMEX ~ KCEX

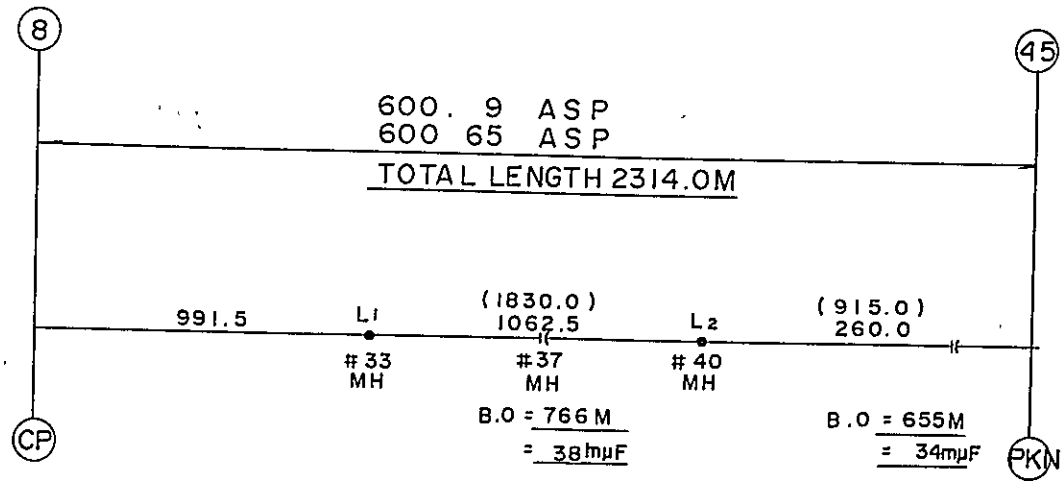


$S = 1830.0$

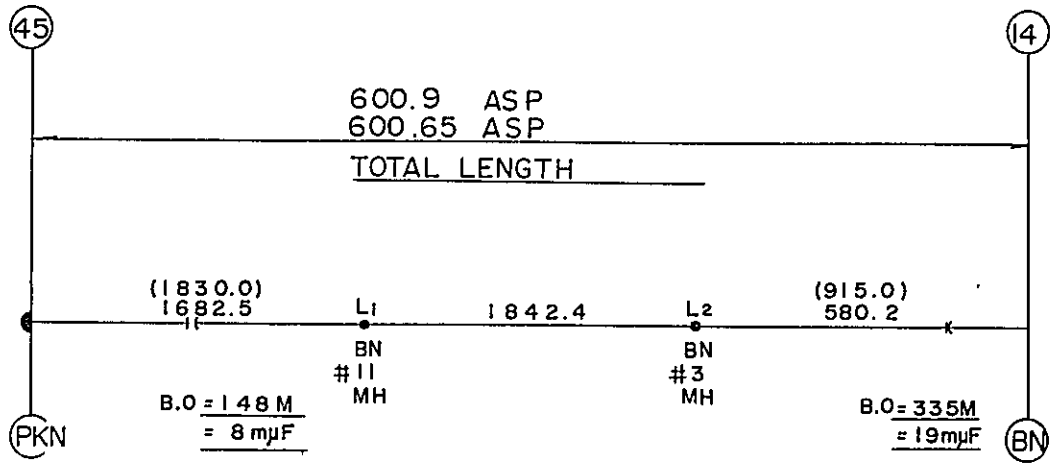
$$\frac{S - So}{So} \times 100 = 0\%$$

$$\frac{S - Si}{S} \times 100 = 0\%$$

CPEX ~ PSEX (PKN TURN OVER)

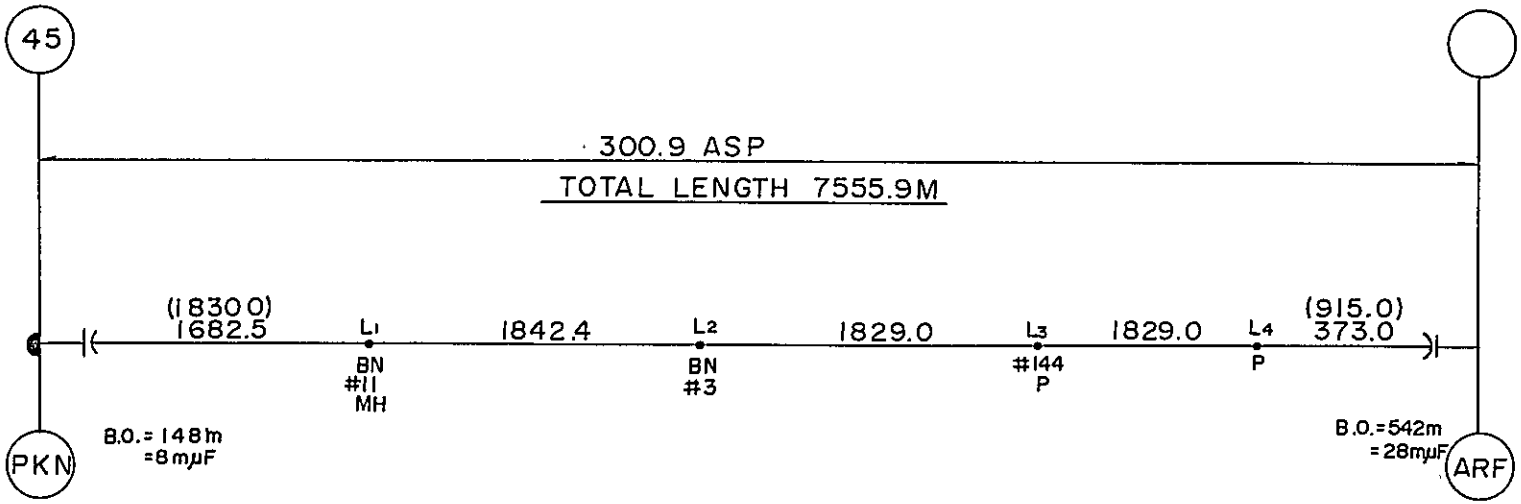


CPEX ~ PSEX (PKN. BN TURN OVER)



NO. 48

CPEX ~ ARFEX (PSEX TURN OVER)

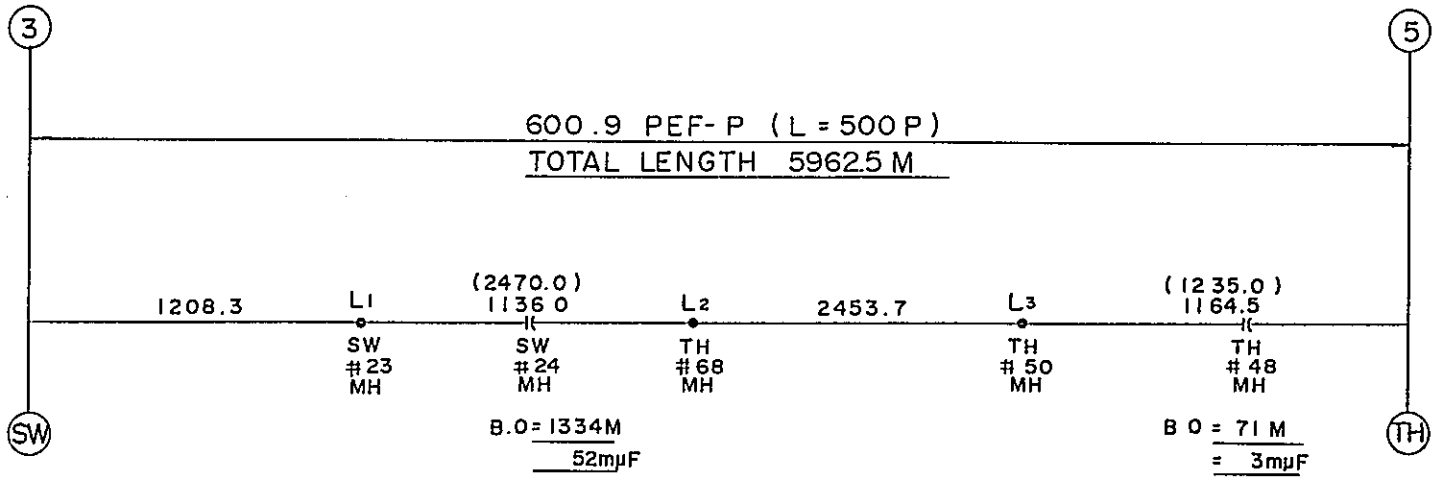


$S = 1833.5$

$$\frac{S - S_0}{S_0} \times 100 = 1.8\%$$

$$\frac{S - S_1}{S} \times 100 = 0.5\%$$

SWEX ~ THEX

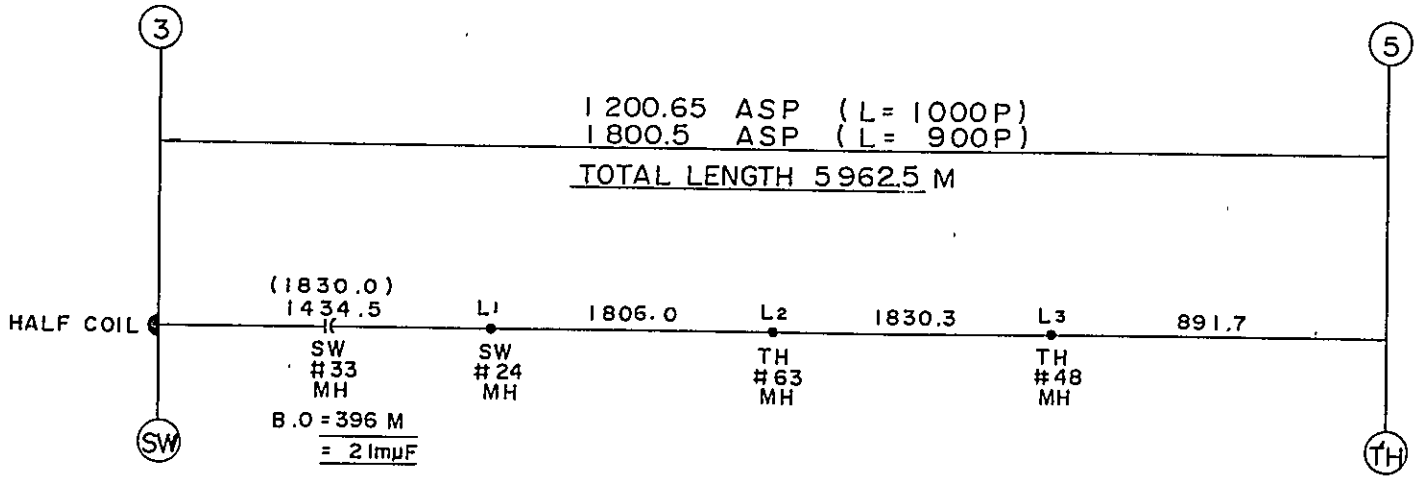


S = 2461.9

$$\frac{So - S}{So} \times 100 = 0.3\%$$

$$\frac{S - Si}{S} \times 100 = 0.3\%$$

SWEX ~ THEX

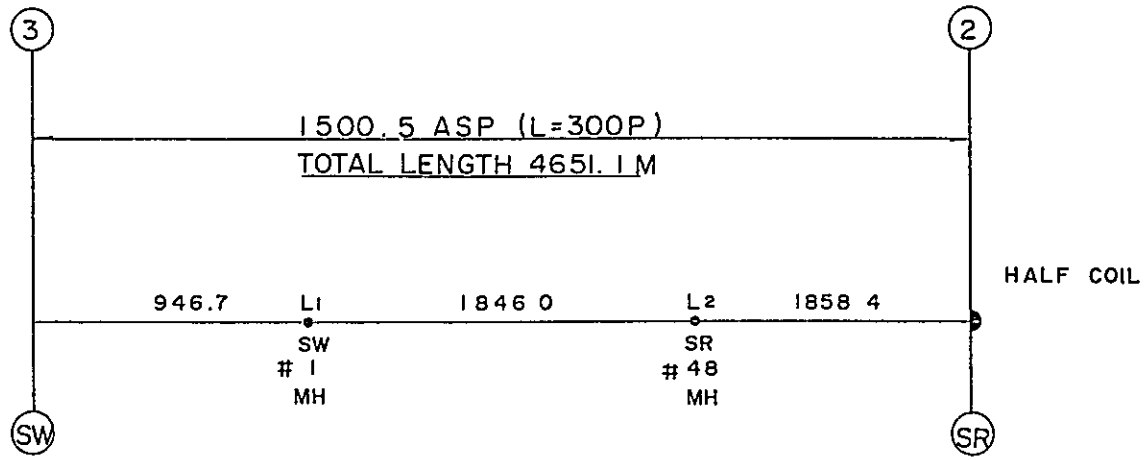


S = 1818.2

$$\frac{So - S}{So} \times 100 = 0.6\ \%$$

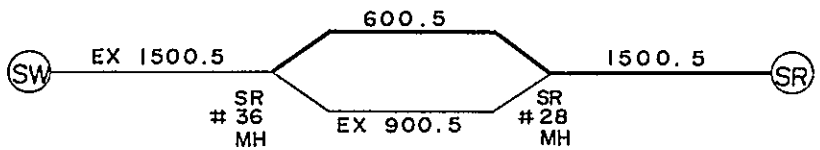
$$\frac{S - Si}{S} \times 100 = 0.7\ \%$$

SWEX~ SREX

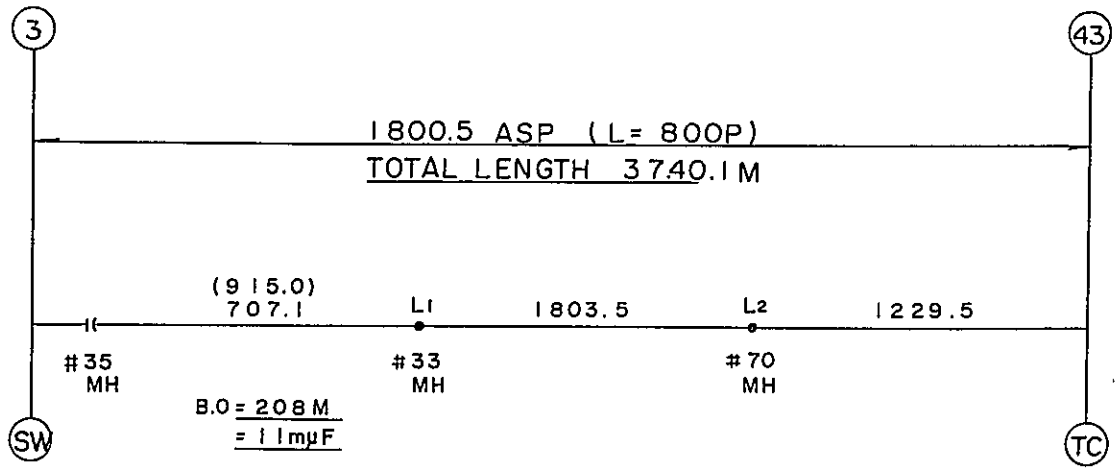


S =

$$\frac{S - So}{So} \times 100 = 0.9\ \%$$



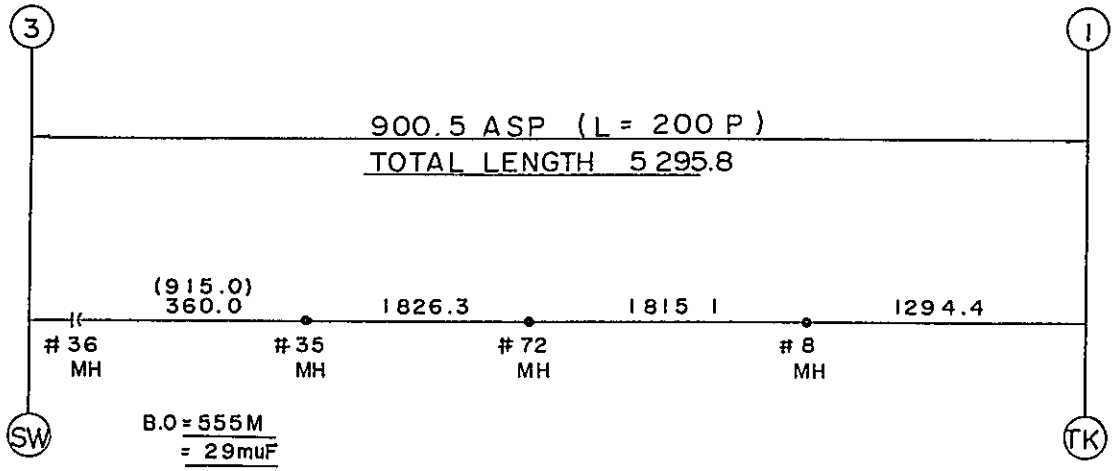
SWEX ~ TCEX



$$S = 1803.5$$

$$\frac{So - S}{So} \times 100 = 1.4\ \%$$

SWEX ~ TKEX

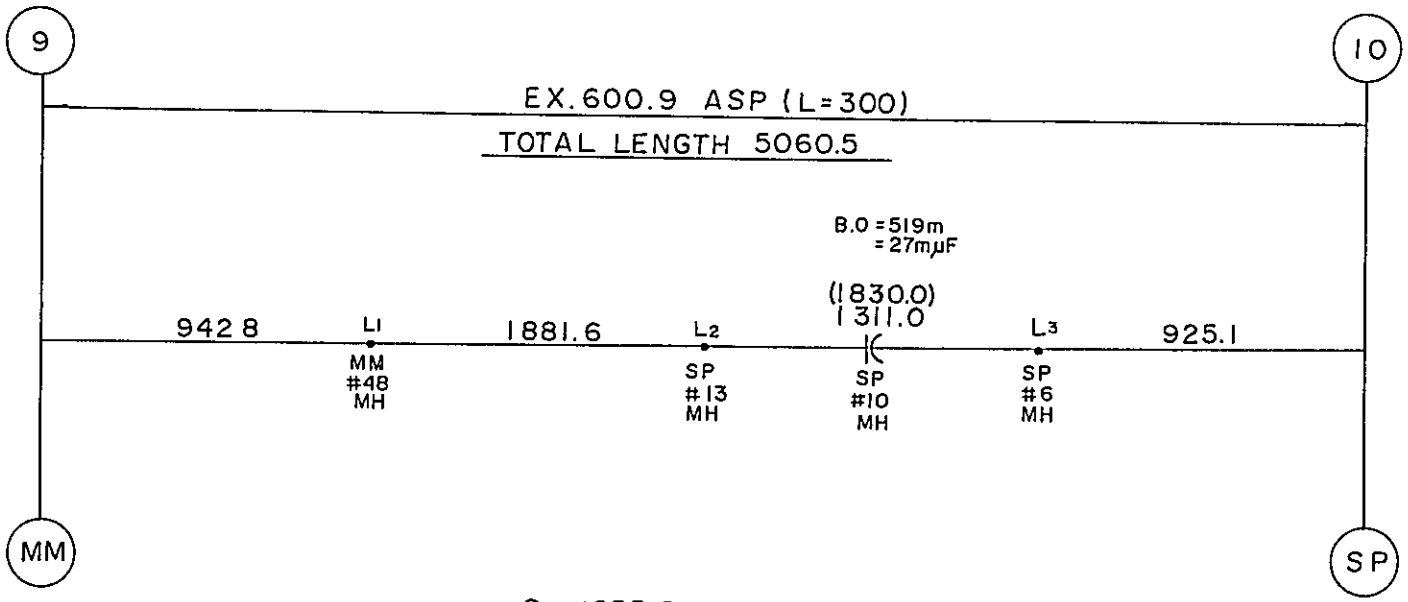


$S = 1820.7$

$$\frac{So - S}{So} \times 100 = 0.5 \ \%$$

$$\frac{S - Si}{S} \times 100 = 0.3 \ \%$$

MM EX. ~ SP EX.



S = 1855.8

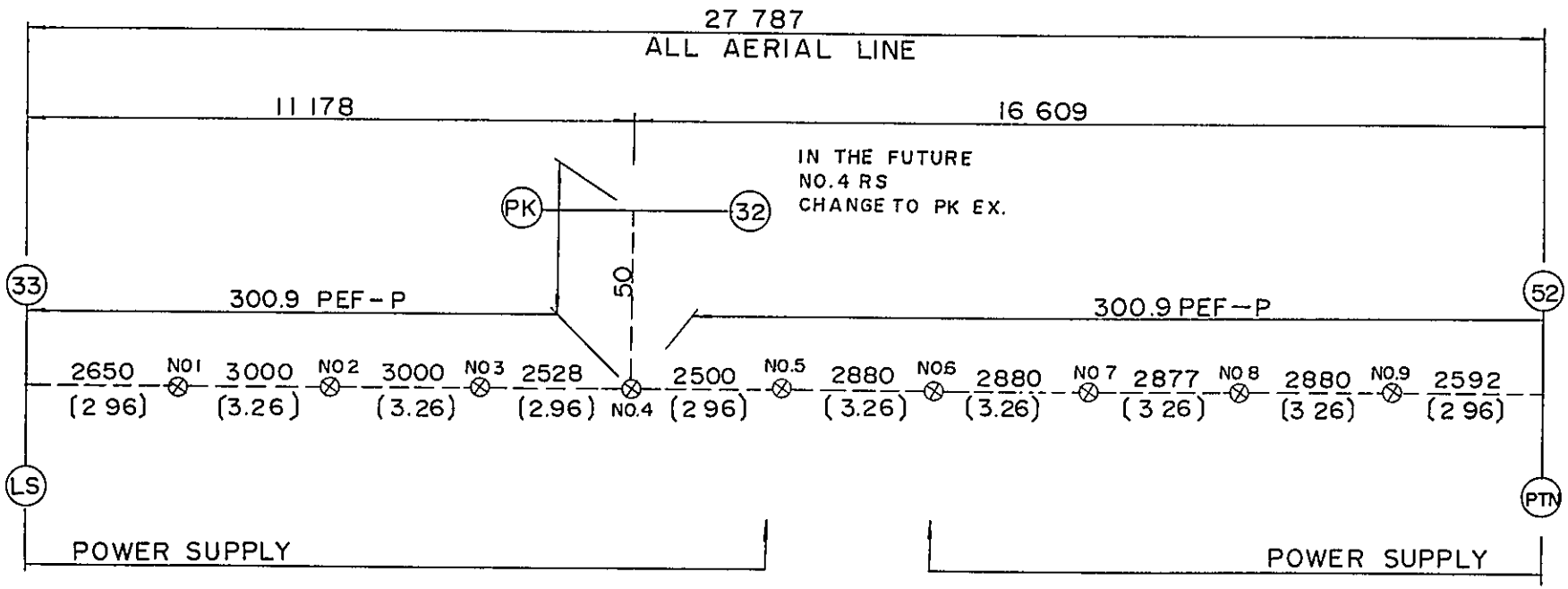
$$\frac{S - S_0}{S_0} \times 100 = 1.4\,\%$$

$$\frac{S - S_1}{S} \times 100 = 1.4\,\%$$

F. PCM中継間隔設計資料

LS EX. – PTN EX.

LS/PTW-1 300 9 PEF-P



	NO. OF SYS		
	1976	1980	1990
LS -PK	6	31	45
PK-PTN	6	13	21

⊗ POLE MAUNTED TYPE REPEATER

( ) MAX SPACE

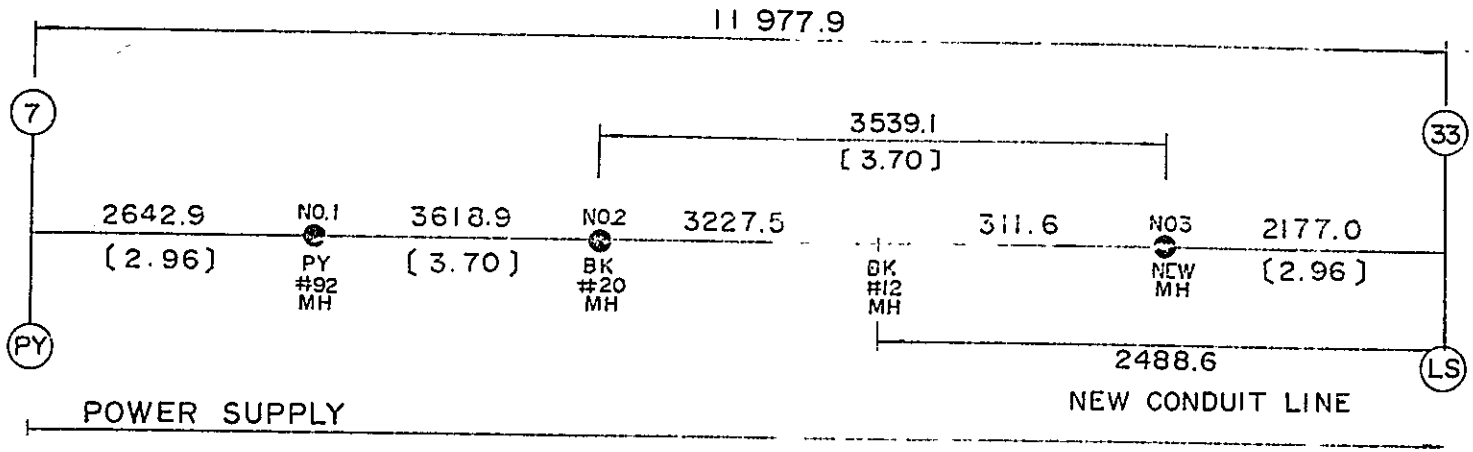
PCM PROVIDED BETWEEN EXCHANGES

PKN — PK	PKN — PTN
PL — PK	PL — PTN
TH — PK	TH — PTN
KK — PK	SW — PTN
PY — PK	PY — PTN
LS — PK	LS — PTN
SW — PK	

NO. 1

PY EX. - LS EX.

PY/LS-1 600 9 PEF-P



NO OF SYS		
1976	1980	1990
23	73	111

R—MANHOLE TYPE REPEATER

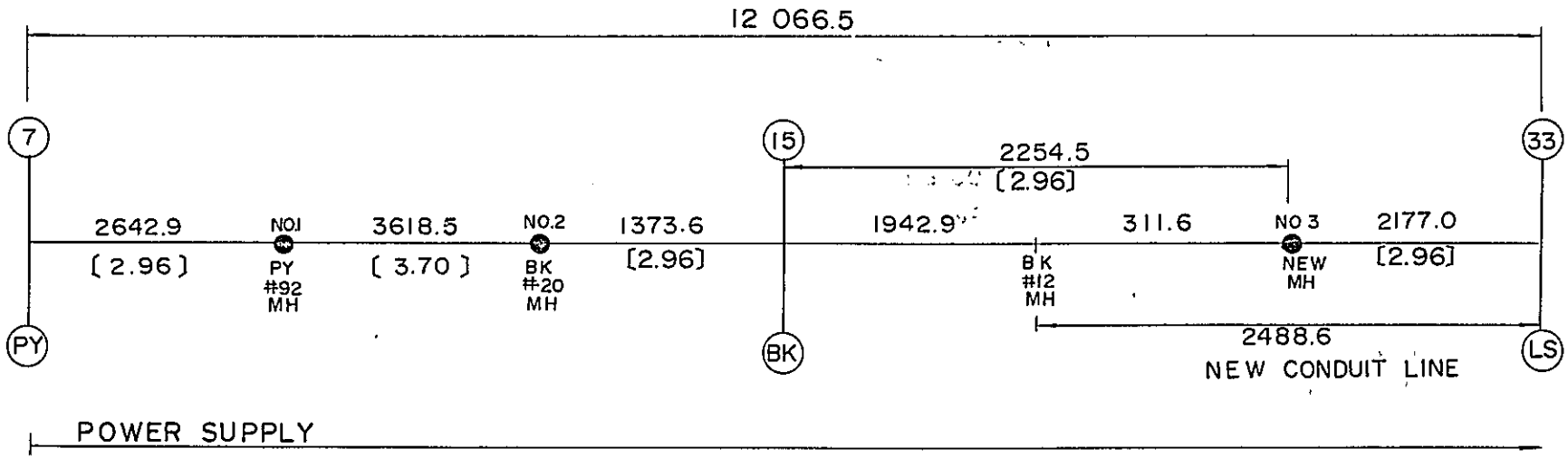
[ ] MAX. SPACE

PCM PROVIDED
BETWEEN FXCHANGES

LS — SW
LS — TH
LS — PL
LS — PKN
LS — SMP

PY EX.– BK EX.– LS EX.

PY/BK - 1 600.9 PEE-P



NO. OF SYS		
1976	1980	1990
25	56	84

R-MANHOLE TYPE REPEATER

[ ] MAX SPACE

PCM PROVIDED
BETWEEN EXCHANGES

PTN – PY
LS – PY
LS – KK

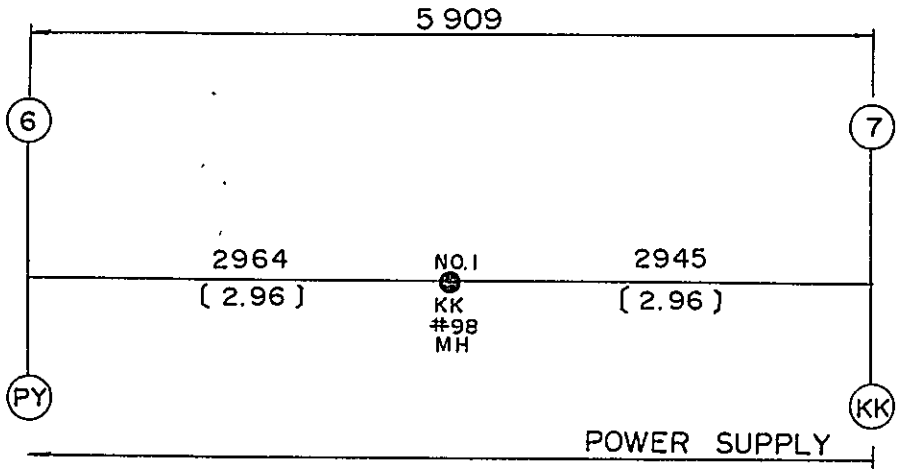
NO. 3

PY EX.— KK EX.

PY/KK-3 600 9 PEF-P

PCM PROVIDED
BETWEEN EXCHANGES

KK — LS
KK — PK
KK — BCH



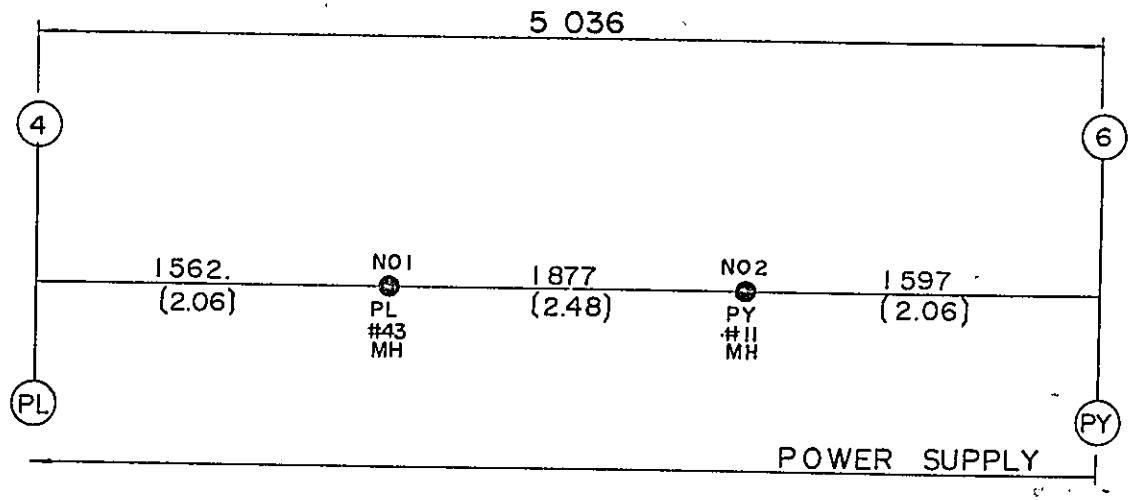
NO. OF SYS		
1976	1980	1990
10	30	48

● R—MH TYPE REPEATER

( ) MAX. SPACE

PL EX. — PY EX.

PL/PY-2 600.9 ASP



PCM PROVIDED
BETWEEN EXCHANGES

PL — BCH
PL — PTN
PL — PK
PL — LS

NO. OF SYS		
1976	1980	1990
8	21	33

● R-MH TYPE REPEATER

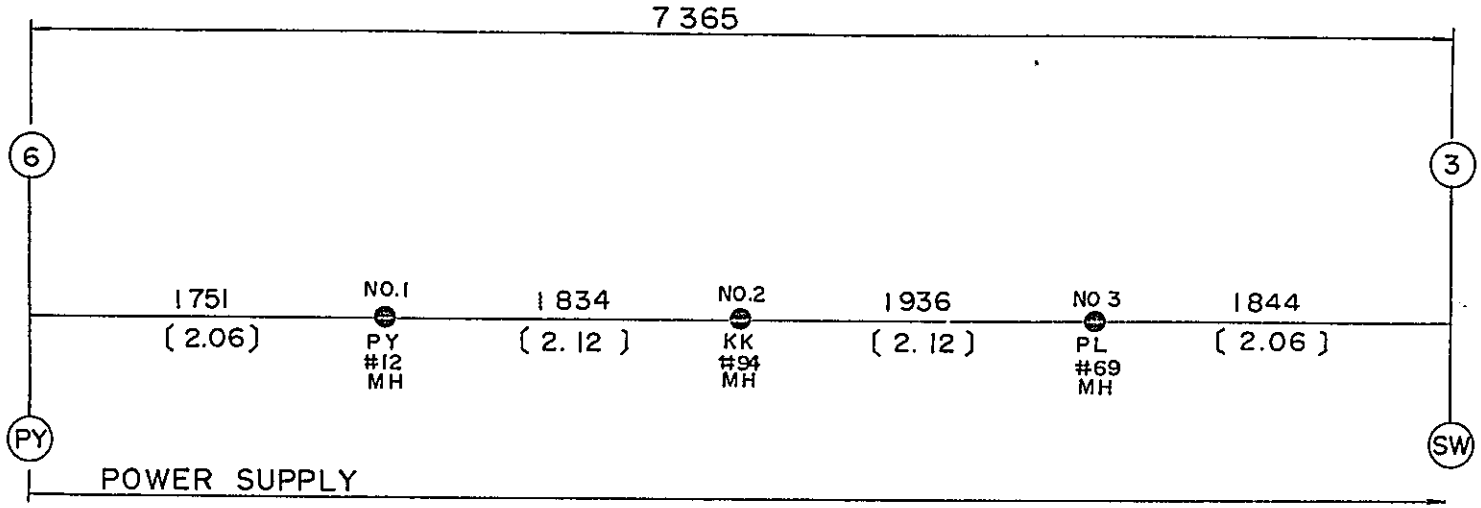
( ) MAX SPACE

PY EX. – SW EX.

PY/SW-1 600.9 ASP

PCM PROVIDED BETWEEN EXCHANGES

LS – SW	LS – MSK
PK – SW	LS – NK
PTN – SW	LS – PPJ
BCH – SW	PY – TH
LS – TH	PY – MSK
PK – TH	PY – NK
PTN – TH	PY – PPJ
BCH – TH	



NO. OF SYS		
1976	1980	1990
34	67	109

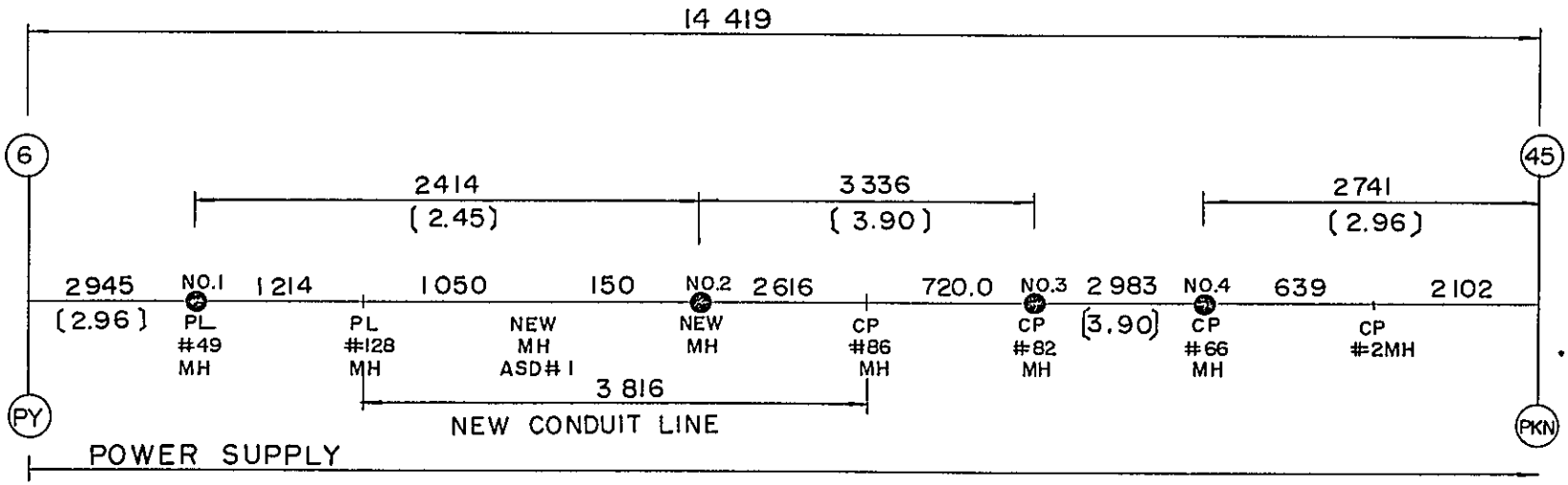
● R-MH TYPE REPEATER

( ) MAX. SPACE

PY EX. – PKN EX.

PY/ASD-2 600.9 PEF-P

PKN/ASD-1 600.9 PEF-P



NO OF SYS		
1976	1980	1990
31	55	75

● R-MH TYPE REPEATER

( ) MAX. SPACE

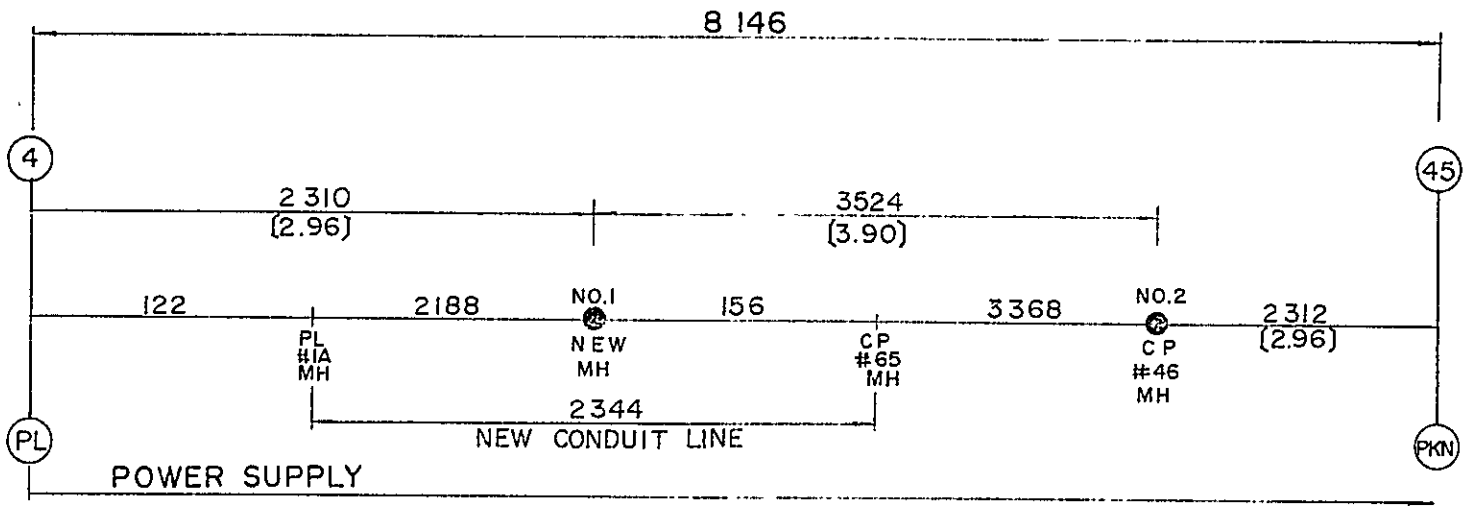
PCM PROVIDED BETWEEN EXCHANGES

PKN – LS	LS – LKB
PKN – PK	LS – ON2
PKN – PTN	PY – BYP
PKN – BCH	PY – SMP
PKN – PY	PY – LKB
LS – BYP	PY – ON2
LS – SMP	

NO.7

PL EX. – PKN EX.

PL/PKN-3 600.9 PEF-P



NO OF SYS		
1976	1980	1990
29	47	54

R–MH TYPE REPEATER

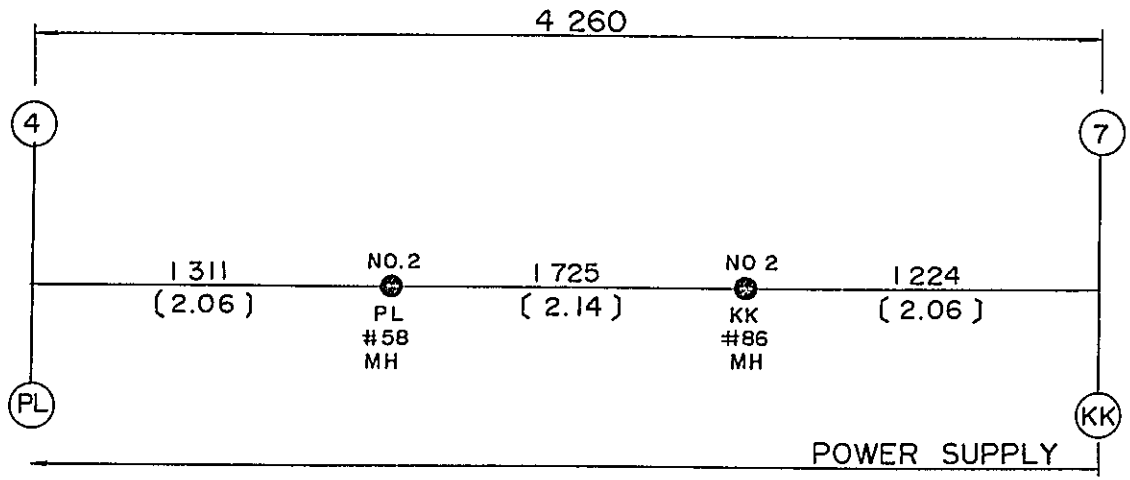
( ) MAX. SPACE

PCM PROVIDED BETWEEN EXCHANGES

KK – PKN
KK – LKB
KK – SMP
KK – BYP

PL EX. – KK EX.

PL/KK-1 600.9 ASP



NO. OF SYS		
1979	1980	1990
29	47	54

● R-MH TYPE REPEATER

( ) MAX. SPACE

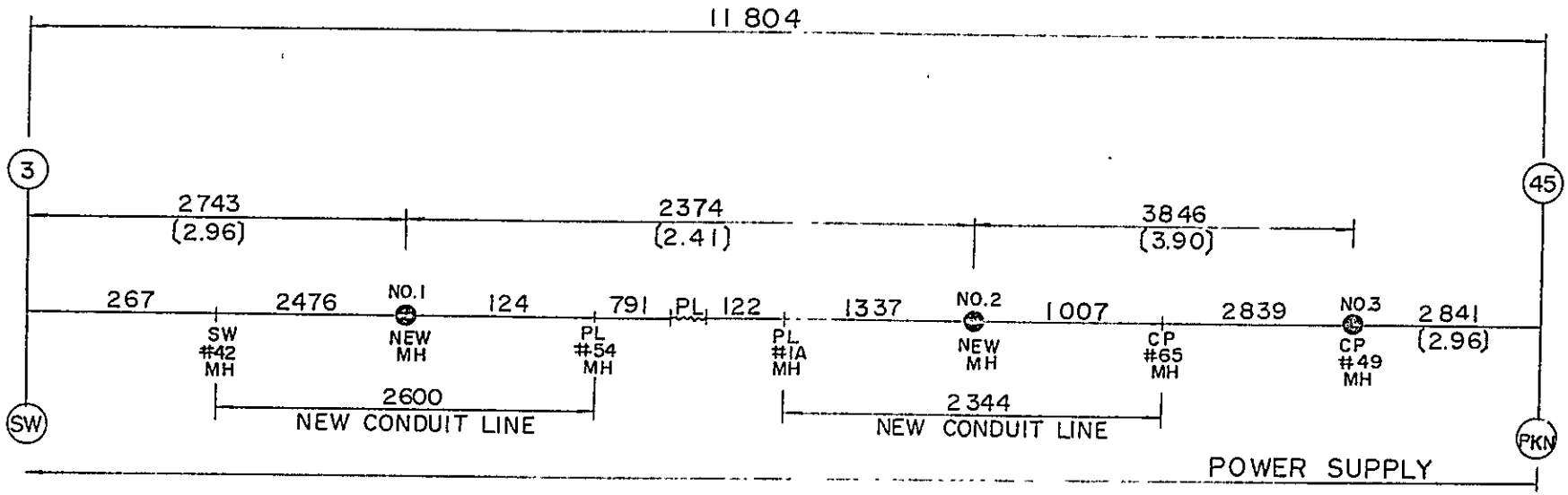
PCM PROVIDED BETWEEN EXCHANGES

KK – PKN
KK – LKB
KK – SMP
KK – BYP

SW EX.— PKN EX.

PL/PKN-2 600.9 PEF-P

PL/SW-5 600.9 PEF-P



NO.OF SYS		
1976	1980	1990
14	30	42

R-MH TYPE REPEATER

( ) MAX. SPACE

PL EX. THROUGH IN MDF.

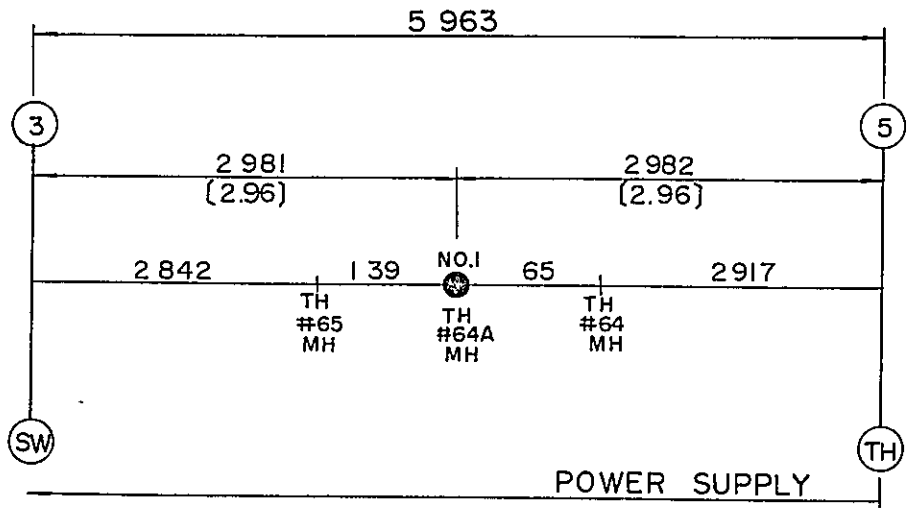
PCM PROVIDED BETWEEN EXCHANGES

PKN — TH	TH — ON2
PKN — MSK	TH — LKB
PKN — NK	TH — SMP
PKN — PPJ	TH — BYP

NO. 10

SW EX. — TH EX.

SW/TH-3 600.9 PEF-P



PCM PROVIDED
BETWEEN EXCHANGES

TH — LS
TH — PK
TH — PTN
TH — BCH
TH — PY
TH — PKN
TH — ON2
TH — LKB

TH — SMP
TH — BYP
LS — MSK
LS — NK
LS — PPJ
PY — MSK
PY — NK
PY — PPJ
PKN — MSK
PKN — NK
PKN — PPJ

NO. OF SYS		
1976	1980	1990
42	81	130

● R-MH TYPE REPEATER

( ) MAX. SPACE