

FCC #	Date	Time of Day	Duration (hours)	Potential Customers Affected	NRSC Listed "Cause"	Outside/Inside Plant	Location on diagram	NRSC Failure Category	NRSC Failure Subcategory	NRSC Root Cause Category	Root Cause SubCategory	NRSC Direct Cause Category	Direct Cause SubCategory	E911 Diversity Issue	SS7 Diversity Issue	Other
02-002	1/2/2002	18:31	1.57	116,000	Power failure	Inside Plant	G	CO Power	DC Plant	Power Failure	Insufficient response to power alarm	Power Failure	Lack of power redundancy	N	N	Lost all transport equipment
02-016	1/28/2002	4:49	3.43	75,235	Facility Failure	Inside/Outside Plant	O	Facility	Other	Procedural Service Provider	Insufficient supervision/control	Cable Damage	Other	N	N	Switch not provisioned properly to take trunks OOS
02-017	1/25/2002	18:50	5.25	11,000	Transport System Failure	Inside Plant	G	CO Power	DC Distribution	Power Failure	Overloaded/undersized power equipment	Design Hardware	Insufficient network redundancy/diversity	Y	N	
02-021	2/9/2002	17:46	1.33	31,200	Lack of power alarms	Inside Plant	I	CO Power	Other	Power Failure	Inadequate/missing power alarm	Design Hardware	Insufficient network redundancy/diversity	Y	N	
02-027	2/14/2002	6:16	3.07	30,722	Work error	Inside Plant	G	CCS	Isolation	Procedural Other Vendor	Insufficient supervision/control	Design Hardware	Insufficient network redundancy/diversity	Y	Y	Lost all transport equipment
02-034	3/14/2002	9:55	4.97	30,000	Fiber Cut	Outside Plant	I	Facility	Cable Placing/Removing	Procedural Service Provider	Insufficient supervision/control	Design Hardware	Insufficient network redundancy/diversity	Y	N	
02-036	3/15/2002	11:42	7.40	38,900	Fiber Cut	Outside Plant	I	Facility	Cable Placing/Removing	Cable Damage	Other	Design Hardware	Insufficient network redundancy/diversity	Y	N	
02-040	3/29/2002	13:43	3.88	41,548	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Cable Damage	Inadequate/no notification (dig-up)	Design Hardware	Insufficient network redundancy/diversity	Y	N	
02-049	4/28/2002	14:18	9.97	335,258	Translation error	Inside Plant	M	Tandem Switch	Hardware	Design Hardware	Insufficient component/network redundancy/diversity	Hardware Failure	Insufficient network redundancy/diversity	Y	N	
02-054	5/7/2002	16:36	11.07	84,900	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Cable Damage	Inadequate/no notification (dig-up)	Design Hardware	Insufficient network redundancy/diversity	Y	N	
02-055	5/14/2002	4:40	7.43	119,069	Procedural	Inside Plant	G	CO Power	Other	Procedural Service Provider	Documentation/procedures unavailable, unclear, incomplete	Design Hardware	Insufficient network redundancy/diversity	Y	N	Power failure removed transport systems
02-057	5/14/2002	3:30	5.00	31,930	Procedural	Inside Plant	G	CO Power	Other	Procedural Service Provider	Insufficient supervision/control	Power Failure	Lack of power diversification	N	N	Power failure removed transport systems
02-058	5/21/2002	18:52	23.60	75,851	Hardware failure	Inside Plant	M	DCS	Hardware	Hardware Failure	Peripheral Unit Failure	Design Hardware	Insufficient network redundancy/diversity	Y	N	Lost all transport equipment
02-061	5/31/2002	1:32	1.17	127,438	Hardware failure	Inside Plant	G	DCS	Hardware	Hardware Failure	Peripheral unit failure	Design Hardware	Insufficient network redundancy/diversity	Y	N	bad pack caused transport system to fail
02-070	6/17/2002	1:05	3.27	646,881	Premise equipment failure	Outside Plant	N	Other(*)	Other	Hardware Failure	Other	Hardware Failure	Other	N	N	
02-072	6/24/2002	23:45	2.95	81,681	Procedural	Inside Plant	O*	CO Power	DC Distribution	Procedural Service Provider	Documentation/procedures unavailable, unclear, incomplete	Procedural Service Provider	Failure to follow standard procedures/documentation	Y	N	Cut power cable removing multiple systems
02-073	6/25/2002	8:50	5.03	33,845	Fiber Cut	Outside Plant	O	Facility	Cable Dig-Up	Cable Damage	Inadequate/no notification (dig-up)	Cable Damage	Caused by dig-ups	N	N	
02-074	6/25/2002	13:12	7.80	34,325	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Procedural Service Provider	Insufficient supervision/control	Cable Damage	Other	Y	Y	
02-077	7/18/2002	1:50	1.28	70,551	Procedural	Inside Plant	G	CO Power	DC Plant	Procedural System Vendor	Insufficient supervision/control	Power Failure		N	N	System vendor battery cable to ground cable in error
02-078	7/24/2002	9:09	5.25	110,538	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Cable Damage	Inadequate/no notification (dig-up)	Cable Damage	Other	N	N	
02-084	8/10/2002	15:50	3.42	90,014	Duplex SS7 link failure	Inside Plant	G	CCS	Link(s) SS7	Procedural System Vendor	Insufficient supervision/control	Hardware Failure	(Dual A Link failure)	N	Y	
02-095	8/31/2002	17:30	6.85	31,906	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	External Environment	Fire	Cable Damage		Y	N	
02-098	9/8/2002	12:37	6.22	45,031	Duplex SS7 link failure	Inside Plant	G*	Facility	Cable Electronics	Procedural Service Provider	Insufficient supervision/control	Design Hardware	Insufficient network redundancy/diversity	Y	Y	Hardware failure
02-099	9/7/2002	23:32	10.33	59,216	Fiber Cut	Outside Plant	I	CCS	Isolation	Design Hardware	Insufficient component/network redundancy/diversity	External Environment	Manmade - Vehicular accident	Y	Y	
02-101	9/13/2002	15:38	5.35	36,900	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Procedural Service Provider	Inaccurate cable locate (dig-up)	Design Hardware	Insufficient network redundancy/diversity	Y	Y	
02-106	9/22/2002	23:41	11.83	31,316	Procedural	Inside Plant	M	CO Power	DC Distribution	Procedural Service Provider	Insufficient supervision/control	Procedural Service Provider	Failure to follow standard procedures/documentation	Y	Y	Cut power cable removing multiple systems
02-117	10/4/2002	8:17	4.63	149,839	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Procedural Service Provider	Inaccurate cable locate (dig-up)	Cable Damage		N	N	Tree cut down resulting in pole fire
02-121	10/14/2002	8:33	3.15	61,000	Translation error	Inside Plant	G	Local Switch	Software	Procedural Service Provider	Insufficient training	Procedural Service Provider	Failure to follow standard procedures/documentation	N	N	
02-122	10/15/2002	13:26	5.07	63,390	Fiber Cut	Outside Plant	I	CCS	Isolation	Internal Environment	Insufficient component/network redundancy/diversity	External Environment	Manmade - Vehicular accident	Y	Y	Vehicle accident cut cable
02-124	10/17/2002	16:41	4.20	16,160	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Cable Damage	Digging error	Design Hardware	Insufficient network redundancy/diversity	Y	Y	
02-125	10/18/2002	15:09	4.48	36,200	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Procedural Service Provider	Inaccurate cable locate (dig-up)	Cable Damage		Y	Y	
02-134	12/6/2002	11:10	2.00	35,625	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Cable Damage	Inadequate/no notification (dig-up)	Design Hardware	Insufficient network redundancy/diversity	Y	N	
02-135	12/5/2002	1:13	144.00	58,000	Weather	Inside Plant	G	Other	Natural Disaster	External Environment	Storm - Water/ice	External Environment	Natural - Storms/Lightning	N	N	
03-002	1/6/2003	14:47	2.83	39,909	Procedural	Inside Plant	O*	Local Switch	Other	Procedural Service Provider	Insufficient training	Procedural Service Provider	Failure to follow standard procedures/documentation	N	N	Inserted loop plug in circuit
03-003	12/18/2002	22:58	18.93	52,210	Translation error	Inside Plant	G	Local Switch	Translations	Procedural Service Provider	Insufficient supervision/control	Procedural Service Provider	Followed procedures/documentation that were incorrect	N	N	
03-004	1/7/2003	14:09	1.10	4,513	Transport System Failure	Outside Plant	I	CCS	Isolation	Other/Unknown	Other	Other/Unknown		Y	N	
03-008	1/21/2003	22:27	5.92	36,168	Fire destroyed cable	Outside Plant	I	Facility	Other	External Environment	Fire	Cable Damage		Y	N	
03-017	2/27/2003	12:25	4.02	33,728	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Cable Damage	Other	Design Hardware	Insufficient network redundancy/diversity	Y	N	
03-019	2/28/2003	4:00	16.70	3,794	Fire destroyed cable	Outside Plant	C	Facility	Other	External Environment	Fire	Cable Damage	Other	N	N	

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03-022	3/12/2003	11:30	0.88	54,995	Translation error	Inside Plant	G	Facility	Other	Procedural Service Provider	Insufficient training	Procedural Service Provider	Failure to follow standard procedures/documentation	Y	N	Removed DSX cross connects
03-029	4/5/2003	5:14	4.85	45,483	Power failure	Inside Plant	G*	CO Power	Standby Generator	Power Failure	Lack of Power redundancy	External Environment	Store - Water/ice	N	N	Total office failure due to power failure and generator failure
03-031	4/22/2003	1:57	3.88	217,071	Translation error	Inside Plant	M	Tandem Switch	Translations	Procedural Service Provider	Insufficient supervision/control	Procedural Service Provider	Failure to follow standard procedures/documentation	N	N	
03-032	4/23/2003	5:17	12.12	65,800	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Cable Damage	Inadequate/no notification (dig-up)	Cable Damage		PSAP diversit	N	
03-034	4/30/2003	8:42	4.95		DACS frame failure	Inside Plant	I	CCS	Isolation	Hardware Failure	Other	Design Hardware	Insufficient network redundancy/diversity	N	Y	Whole office isolated
03-035	4/26/2003	13:09	3.67	32,700	Fiber Cut	Outside Plant	O*	Facility	Cable Dig-Up	Procedural Service Provider	Inaccurate cable locate (dig-up)	Cable Damage	Digging error	PSAP diversit	N	
03-037	5/21/2003	0:36	1.15	54,000	Procedural	Inside Plant	I	DCS	Other	Procedural System Vendor	Insufficient training	Procedural System Vendor	Failure to follow standard procedures/documentation	Y	N	SS7 failure
03-039	5/15/2003	0:27	0.63	364,104	Procedural	Inside Plant	M	CO Power	DC Distribution	Procedural Other Vendor	Insufficient supervision/control	Procedural Other Vendor	Failure to follow standard procedures/documentation	Y	N	Power failure caused by contractor
03-042	6/1/2003	12:15	11.00	96,465	Power failure	Inside Plant	G	CO Power	Other	Power Failure	Other	Power Failure		N	N	Entire office and all transport systems lost
03-051	7/26/2003	10:06	1.90	81,362	Power failure	Inside Plant	I	CO Power	DC Plant	Procedural Service Provider	Insufficient training	Power Failure		Y	N	Caused by storms
03-054	8/4/2003	13:56	3.32	15,669	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Cable Damage	Digging error	Design Hardware	Insufficient network redundancy/diversity	Y	n	
03-062	3/14/2003	9:34	13.62	47,476	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Procedural Service Provider	Insufficient training	Cable Damage	Digging Error	Y	N	
03-064	8/18/2003	15:56	7.57	89,089	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Cable Damage	Other	Design Hardware	Insufficient network redundancy/diversity	Y	N	
03-069	8/26/2003	10:45	0.88	56,939	cable cut	Outside Plant	O*	Facility	Cable Dig-Up	Cable Damage	Inadequate/no notification (dig-up)	Cable Damage		PSAP diversit	N	
03-072	8/27/2003	10:56	6.47	32,700	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Cable Damage	Inadequate/no notification (dig-up)	Cable Damage		Y	N	
03-074	9/3/2003	16:00	1.30	101,913	Fiber Cut	Outside/Inside Plant	I	Facility	Cable Dig-Up	Procedural Service Provider	Inaccurate cable locate (dig-up)	Cable Damage	Digging error	N	N	
03-075	9/3/2003	7:50	4.63	49,700	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	External Environment	Vandalism/theft	Cable Damage		Y	Y	Fibers cut by vandalism at regen site
03-088	10/20/2003	16:30	3.50	70,827	Translation Error	Inside Plant	I	Local Switch	Translations	Procedural Service Provider	Insufficient training	Procedural Service Provider	Failure to follow standard procedures/documentation	N	N	Whole office out
03-090	10/8/2003	20:30	3.17	31,956	Transport System Failure	Inside Plant	I	Facility	Cable Electronics	Hardware Failure	Peripheral unit failure	Hardware Failure		Y	N	
03-104	10/28/2003	15:55	11.83	49,700	Fiber Cut	Outside Plant	I	Facility	Aerial Cable Cut	Cable Damage	Other	External Environment	Natural - Storms, Wind/Trees	Y	N	
03-107	11/2/2003	23:15	2.95	46,724	Translation error	Inside Plant	G	CCS	Isolation	Design Software	Faulty software load - office data	Design Software		N	N	SS7 isolation
03-109	11/7/2003	15:18	0.73	101,913	Fiber Cut	Outside Plant	O	Facility	Cable Dig-Up	Cable Damage	Inadequate/no notification (dig-up)	Cable Damage	Digging error	Y	N	
03-111	11/29/2003	11:21	1.20	33,756	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Cable Damage	Inadequate/no notification (dig-up)	Cable Damage	Digging error	Y	N	
03-112	11/19/2003	4:49	7.38	39,500	Transport System Failure	Inside Plant	I	Facility	Cable Electronics	Hardware Failure	Other	Hardware Failure		N	N	
03-117	12/3/2003	9:58	8.07	65,003	Fiber Cut	Outside Plant	I	Facility	Cable Dig-Up	Cable Damage	Digging error	Cable Damage	Digging error	Y	N	
03-119	12/9/2003	14:30	2.47	38,103	Switch failure	Inside Plant	I	CCS	Isolation	Procedural Service Provider	Insufficient supervision/control	Traffic/System Overload	High call volume	N	Y	SS7 isolation and switch failure
03-120	12/10/2003	23:25	1.78	33,104	Hardware failure	Inside Plant	G	CCS	Isolation	Hardware Failure	Peripheral unit failure	Hardware Failure		N	Y	SS7 isolation
03-124	12/21/2003	18:00	15.00	2,650	Fire destroyed cable	Outside Plant	C*	Facility	Other	External Environment	Fire	Cable Damage		N	N	
04-001	1/8/2004	21:41	2.68	50,239	Environmental	Inside Plant	M	Local Switch	Other	Internal Environment	Other	Internal Environment	Water	N	N	Water leak took down switch - 911 tandem
04-002	1/12/2004	8:56	0.82	318,289	Procedural	Inside Plant	O*	Facility	Other	Procedural Service Provider	Documentation/procedures unavailable, unclear, incomplete	Procedural Service Provider	Failure to follow standard procedures/documentation	N	N	Trunks made busy in error
04-004	1/14/2004	3:17	0.55	112,236	Procedural	Inside Plant	O*	CCS	Other	Procedural Service Provider	Insufficient supervision/control	Procedural Service Provider	Failure to follow standard procedures/documentation	N	N	Blown fuse
04-006	1/18/2004	0:03	3.52	43,224	Environmental	Inside Plant	G	CCS	Isolation	Internal Environment	Environmental system failure (heat/humidity)	Internal Environment	Water	N	N	Burst pipes caused clock failure
04-008	1/26/2004	9:11	0.95	88,909	Hardware failure	Inside Plant	O*	DCS	Hardware	Hardware Failure	Processor community failure	Internal Environment	Temperature	N	N	scan point failure isolated PSAP
04-009	2/3/2004	14:50	0.80	1,763,409	Translation error	Inside Plant	M	Tandem Switch	Translations	Procedural Service Provider	Insufficient training	Procedural Service Provider	Failure to follow standard procedures/documentation	N	N	
04-012	2/9/2004	10:10	10.83	42,500	Hardware failure	Inside Plant	O*	DCS	Hardware	Hardware Failure	Other	Hardware Failure		N	N	DSX failure
04-013	2/6/2004	11:59	46.07	32,763	Translation error	Inside Plant	M	Local Switch	Translations	Procedural Service Provider	Documentation/procedures unavailable, unclear, incomplete	Design Software	Inadequate Defensive Checks	N	N	
04-026	3/26/2004	19:05	1.75	2,900,000	Translation error	Inside Plant	M	Local Switch	Translations	Procedural Service Provider	Insufficient training	Procedural Service Provider	Failure to follow standard procedures/documentation	N	N	