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B-2. Classification Data

Figure B-1 Autosense I Active IR Snowfall Analysis - Continuous Test 9

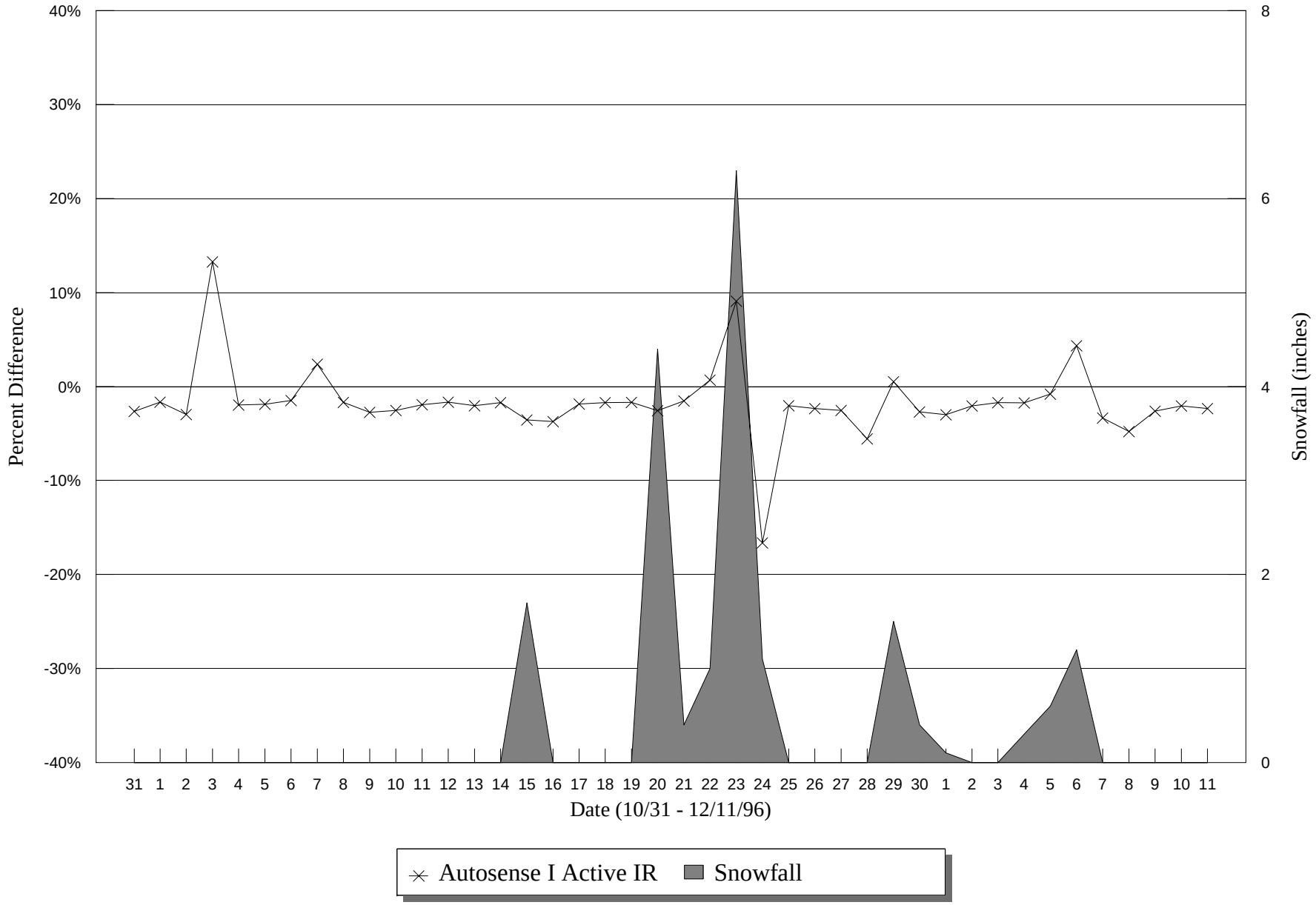


Figure B-2 Autosense I Active IR Snowfall Analysis - Continuous Test 10

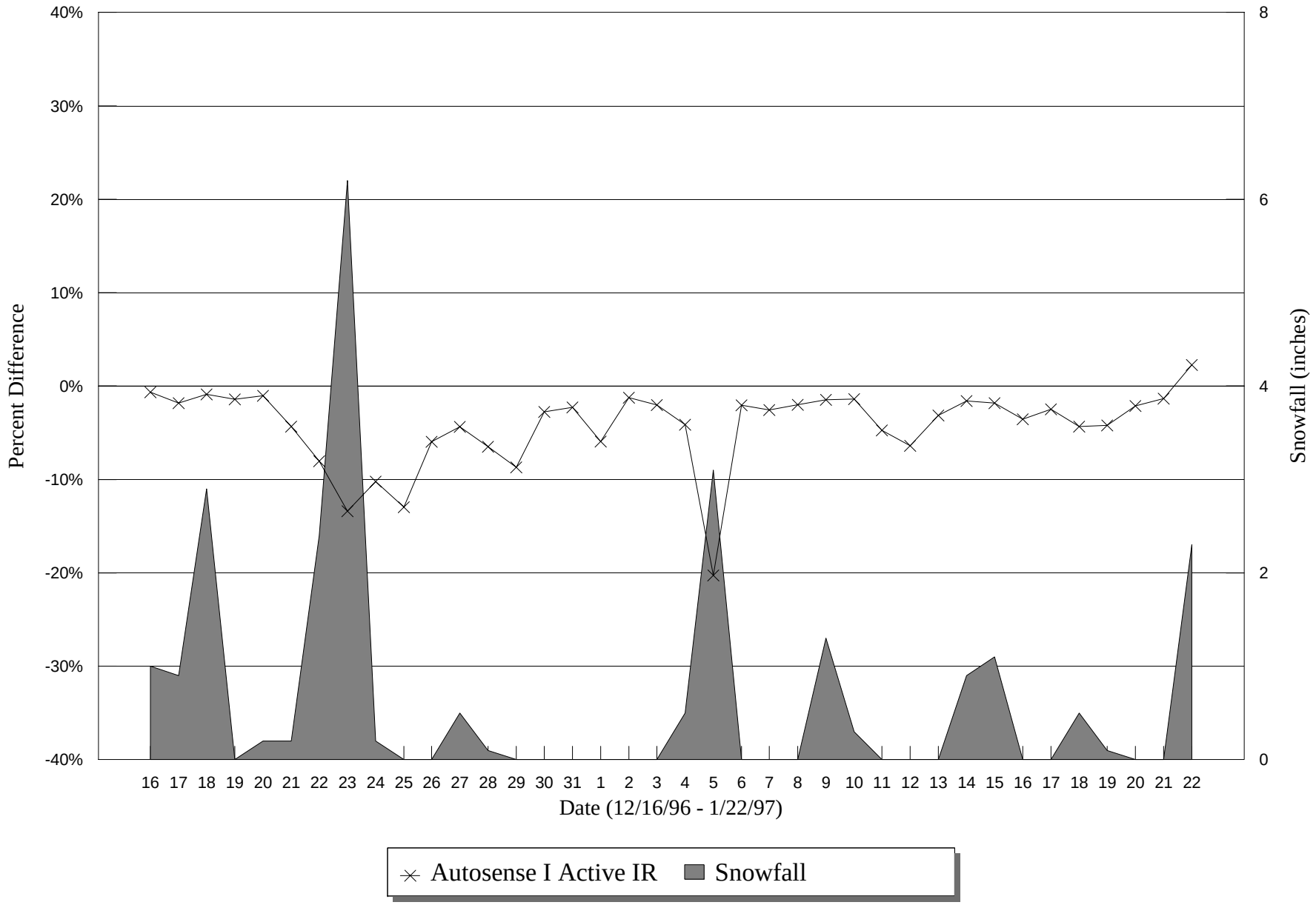
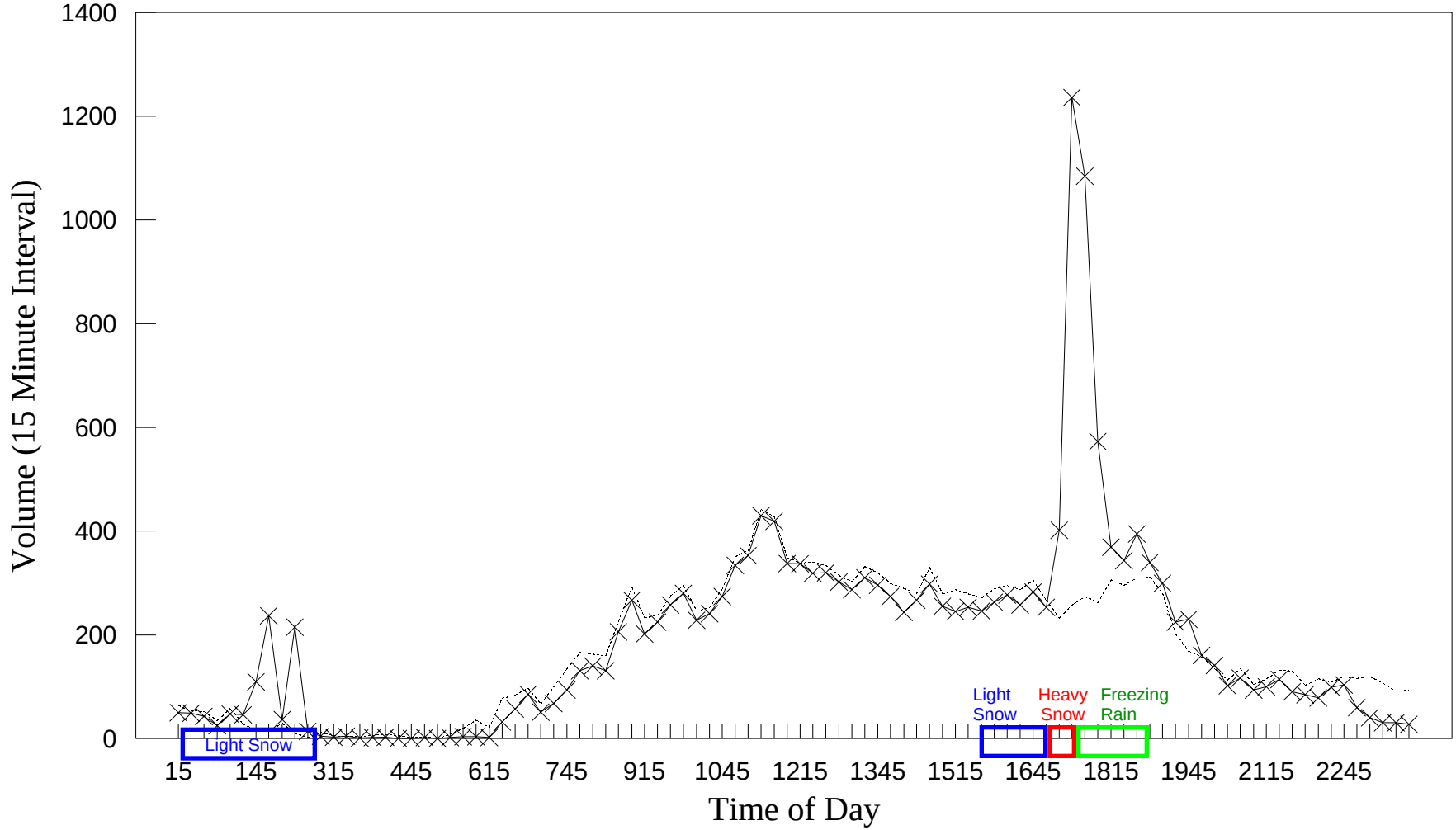


Figure B-3 Autosense I Active IR Snowfall Analysis

November 23, 1996

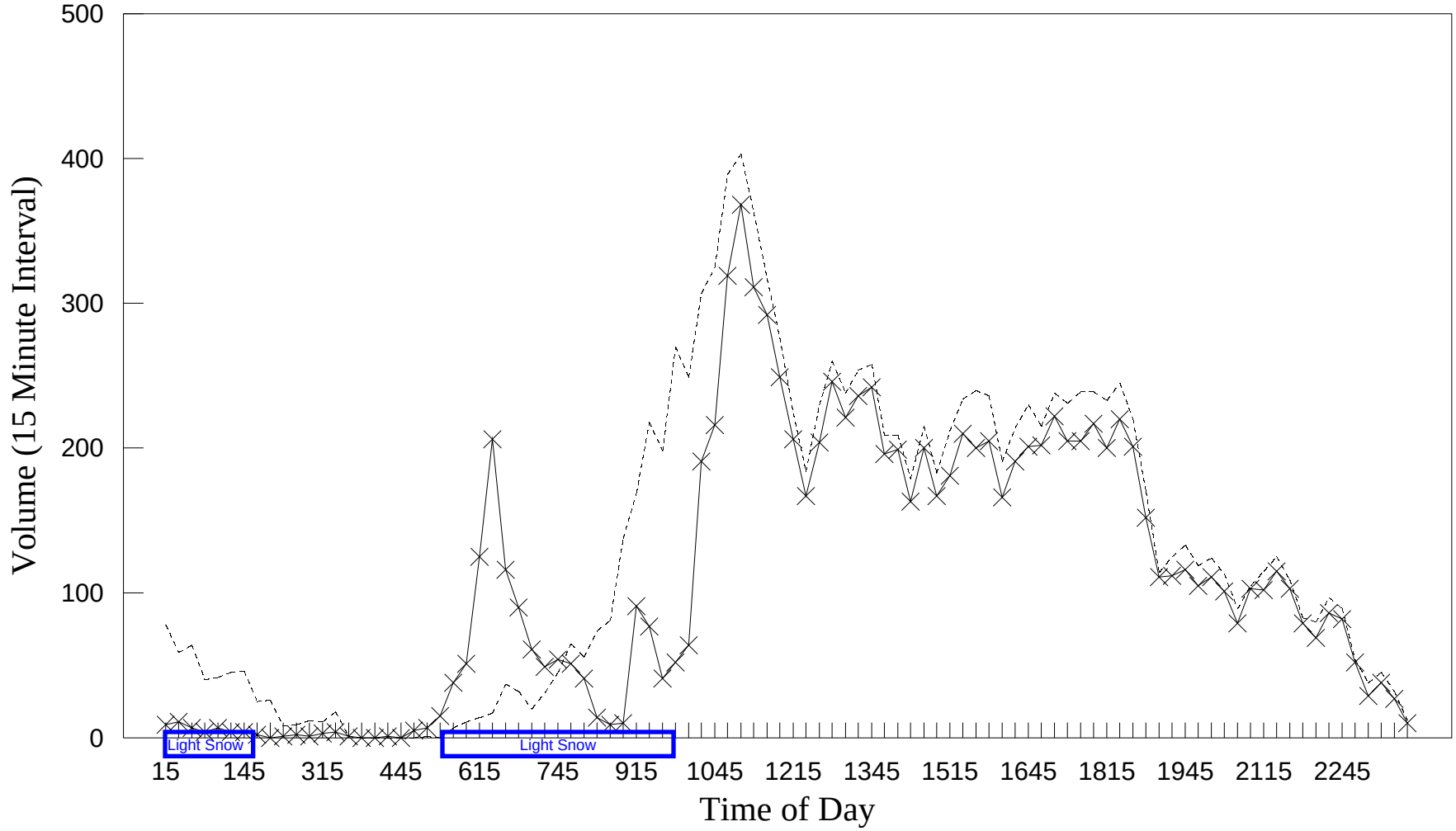


Loop 1

Autosence I Active IR

Figure B-4 Autosense I Active IR Snowfall Analysis

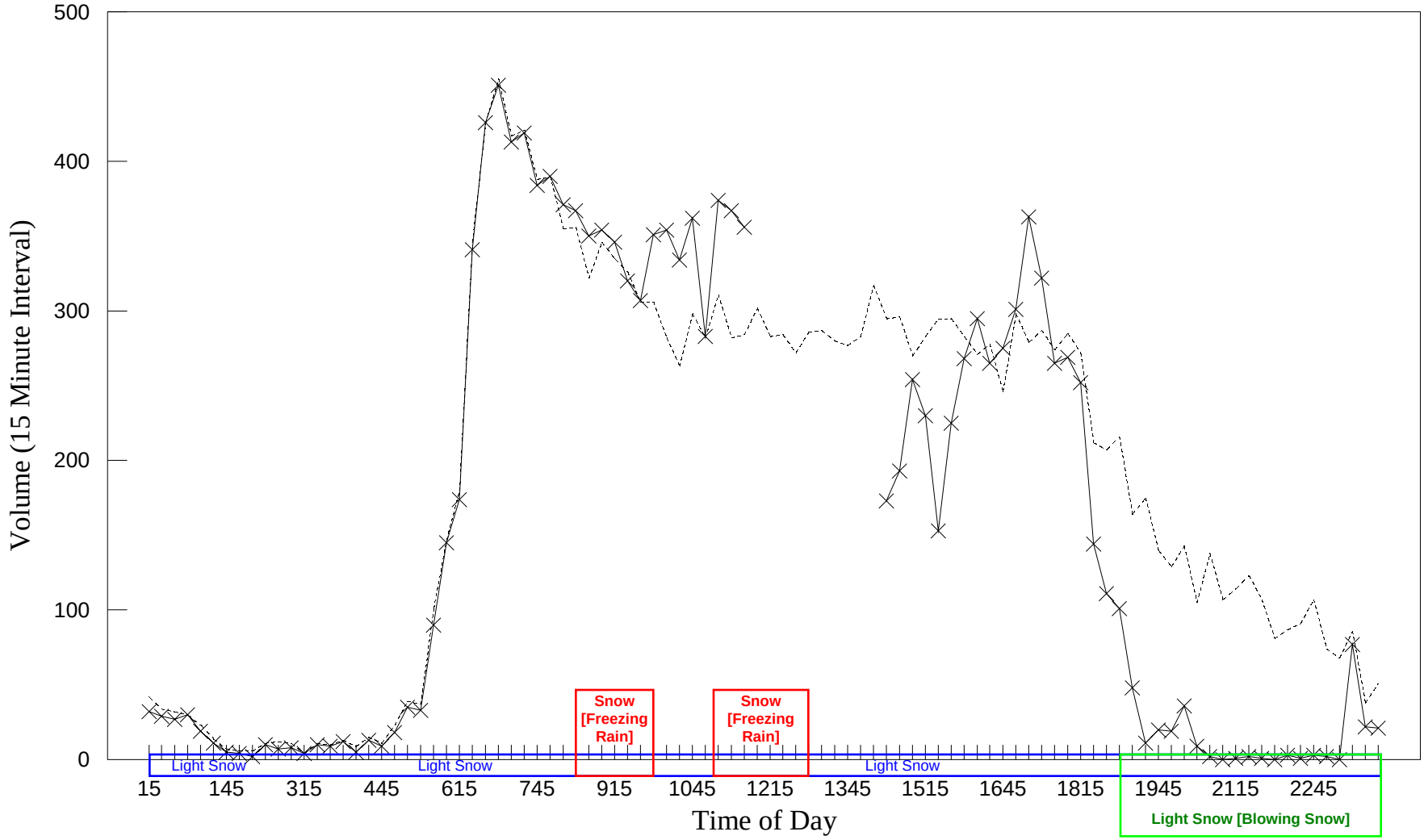
November 24, 1996



Loop 1 Autosense I Active IR

Figure B-5 Autosense I Active IR Snowfall Analysis

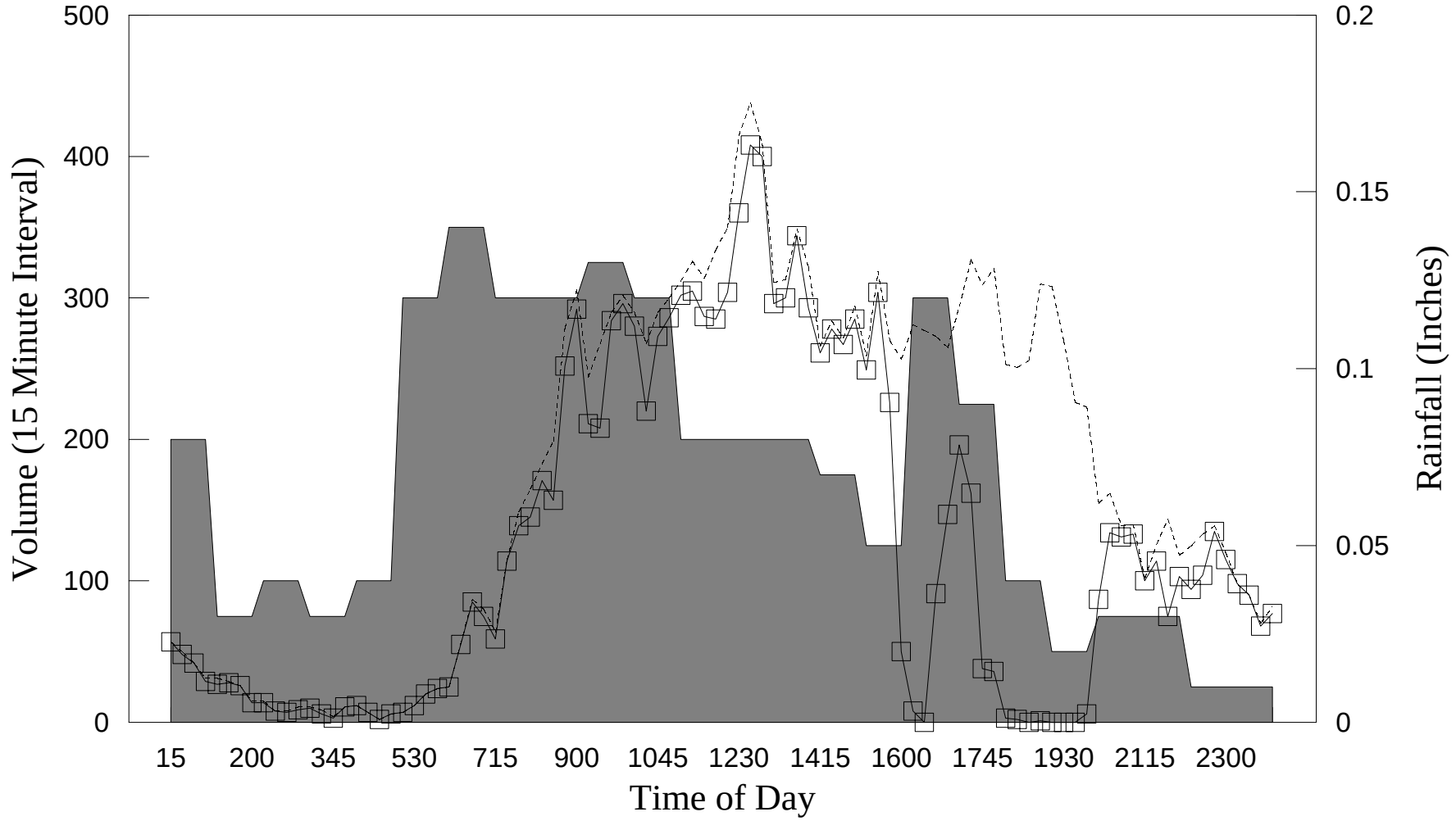
December 23, 1996



Loop 1 Autosense I Active IR

Figure B-6 RTMS Radar Rainfall Analysis

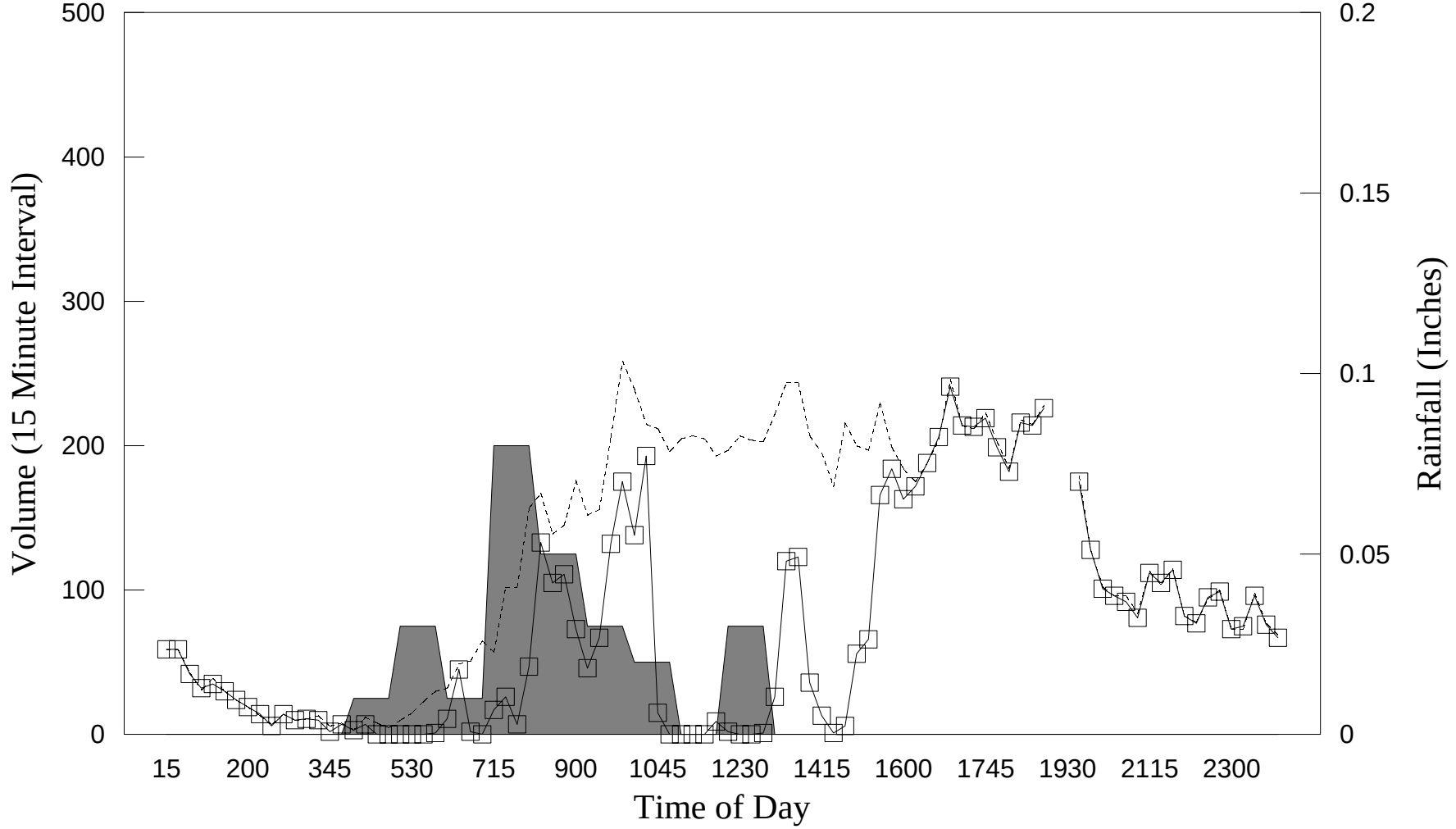
November 16, 1996



Loop 1 RTMS Radar Rainfall

Figure B-7 RTMS Radar Rainfall Analysis

January 4, 1997



Loop 1 RTMS Radar Rainfall

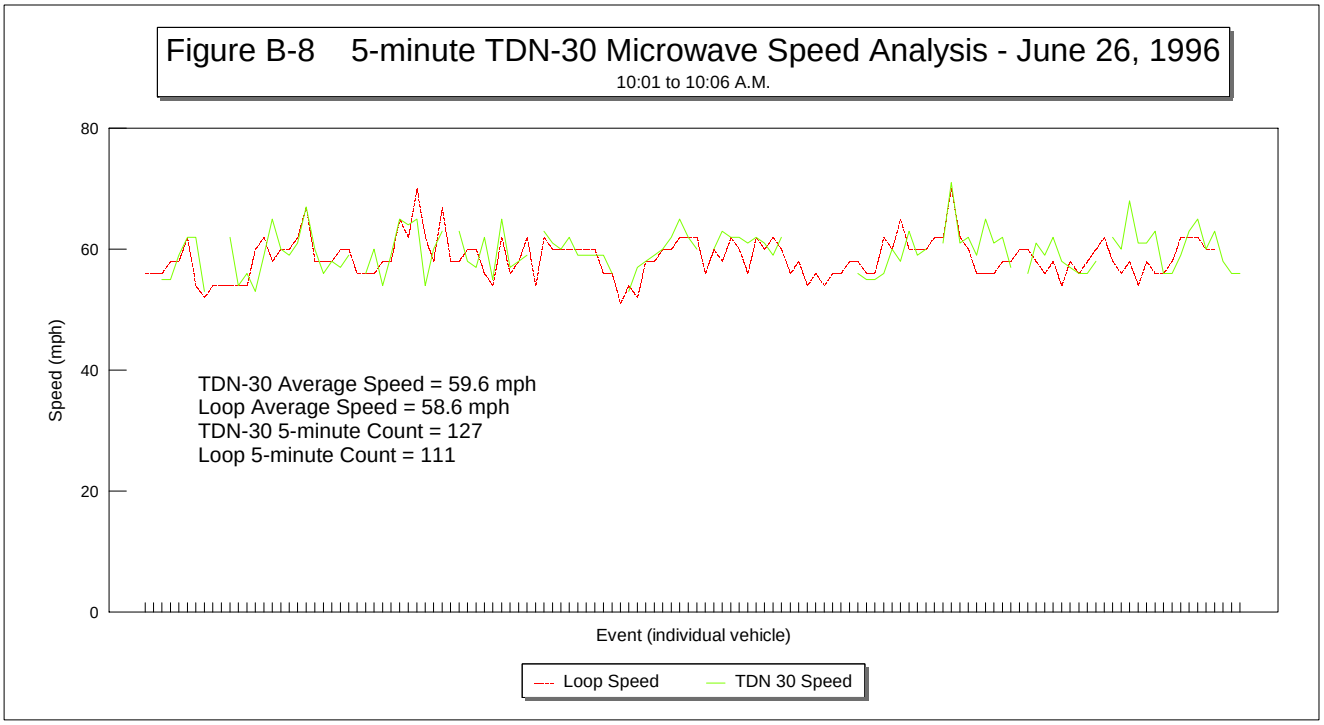


Figure B-8 5-minute TDN-30 Microwave Speed Analysis - June 26, 1996
10:01 to 10:06 A.M.
Speed (mph)
80
60
40
20
0
TDN-30 Average Speed = 59.6 mph
Loop Average Speed = 58.6 mph
TDN-30 5-minute Count = 127
Loop 5-minute Count = 111
Event (individual vehicle)
Loop Speed
TDN 30 Speed

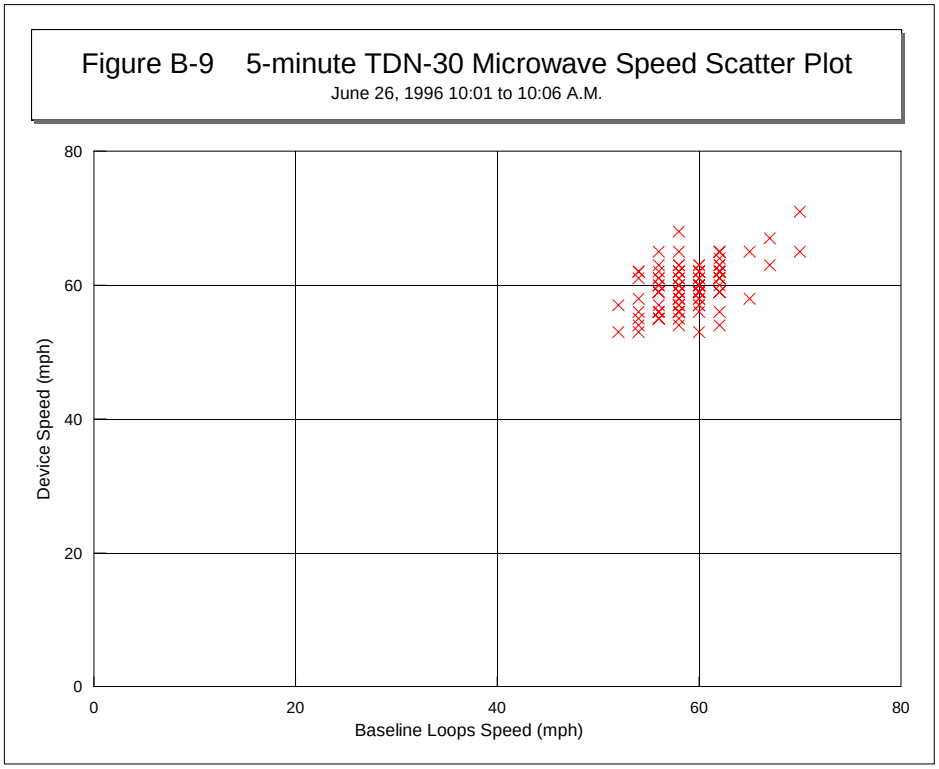


Figure B-9 5-minute TDN-30 Microwave Speed Scatter Plot
June 26, 1996 10:01 to 10:06 A.M.
Device Speed (mph)
80
60
40
20
0
0
20
40
60
80
Baseline Loops Speed (mph)

Figure B-10 SmartSonic Acoustic Snowfall Analysis - Continuous Test 10

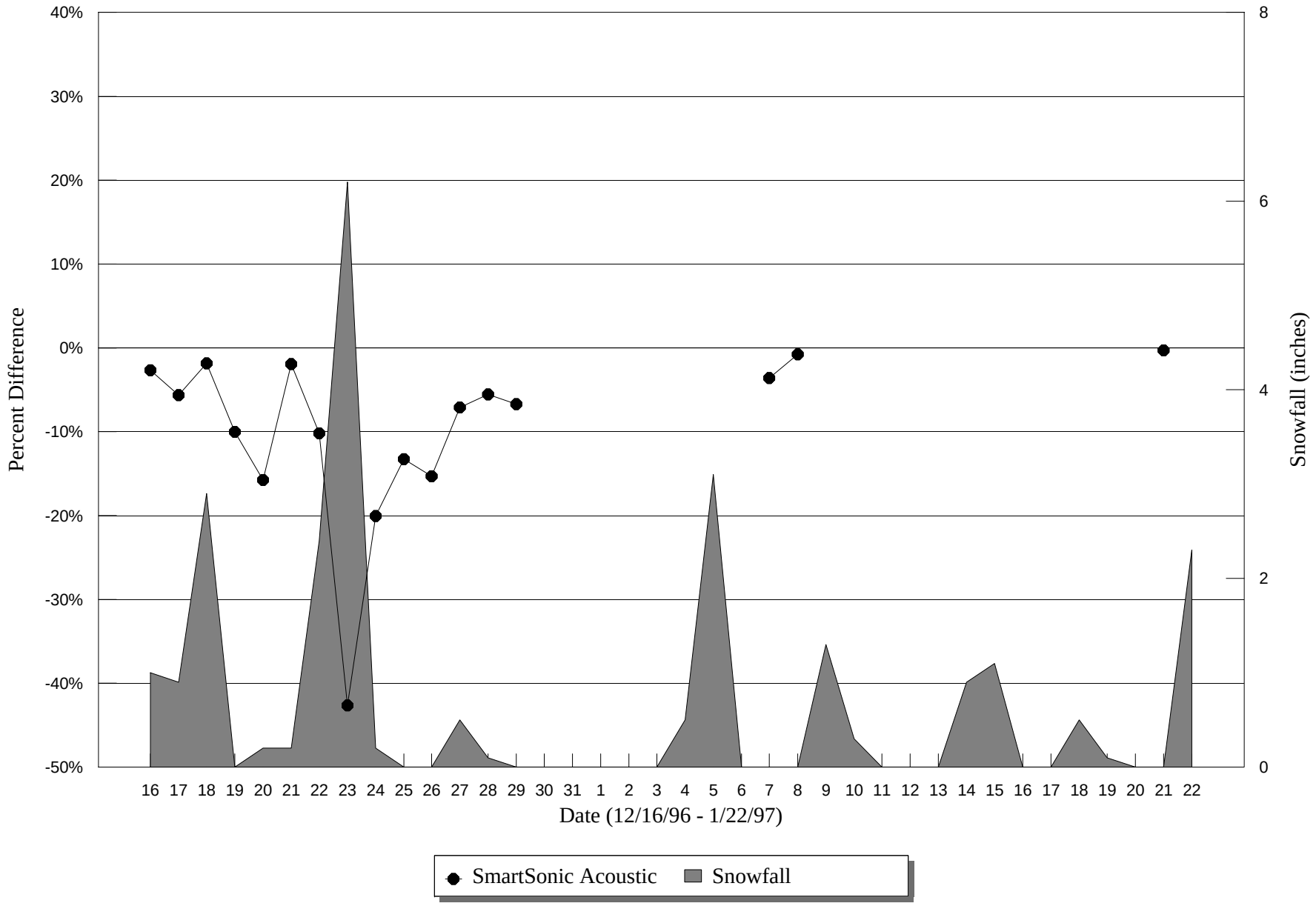


Figure B-11 SmartSonic Acoustic Temperature Analysis

December 20, 1996

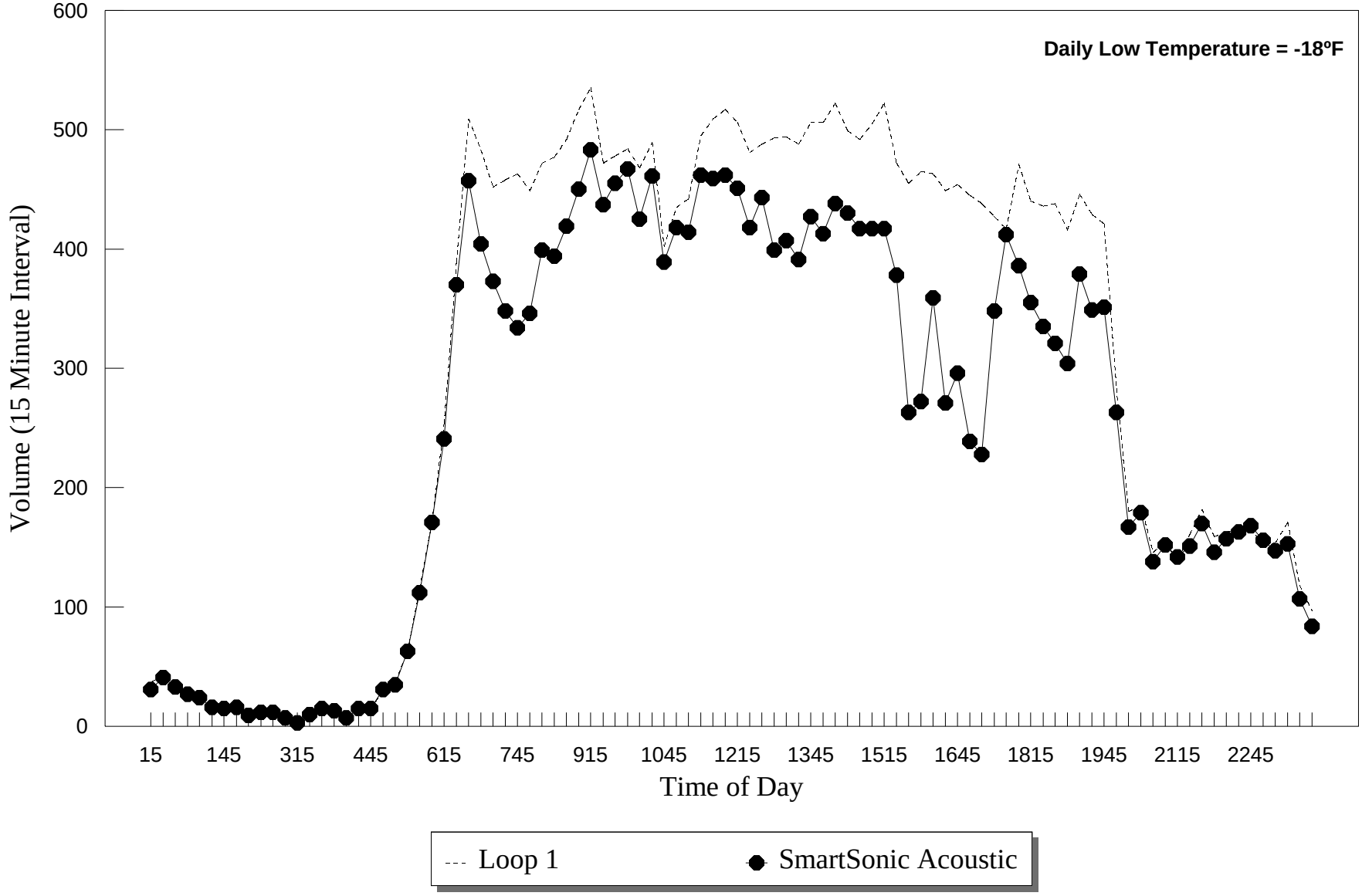


Figure B-12 SmartSonic Acoustic Snowfall Analysis

December 23, 1996

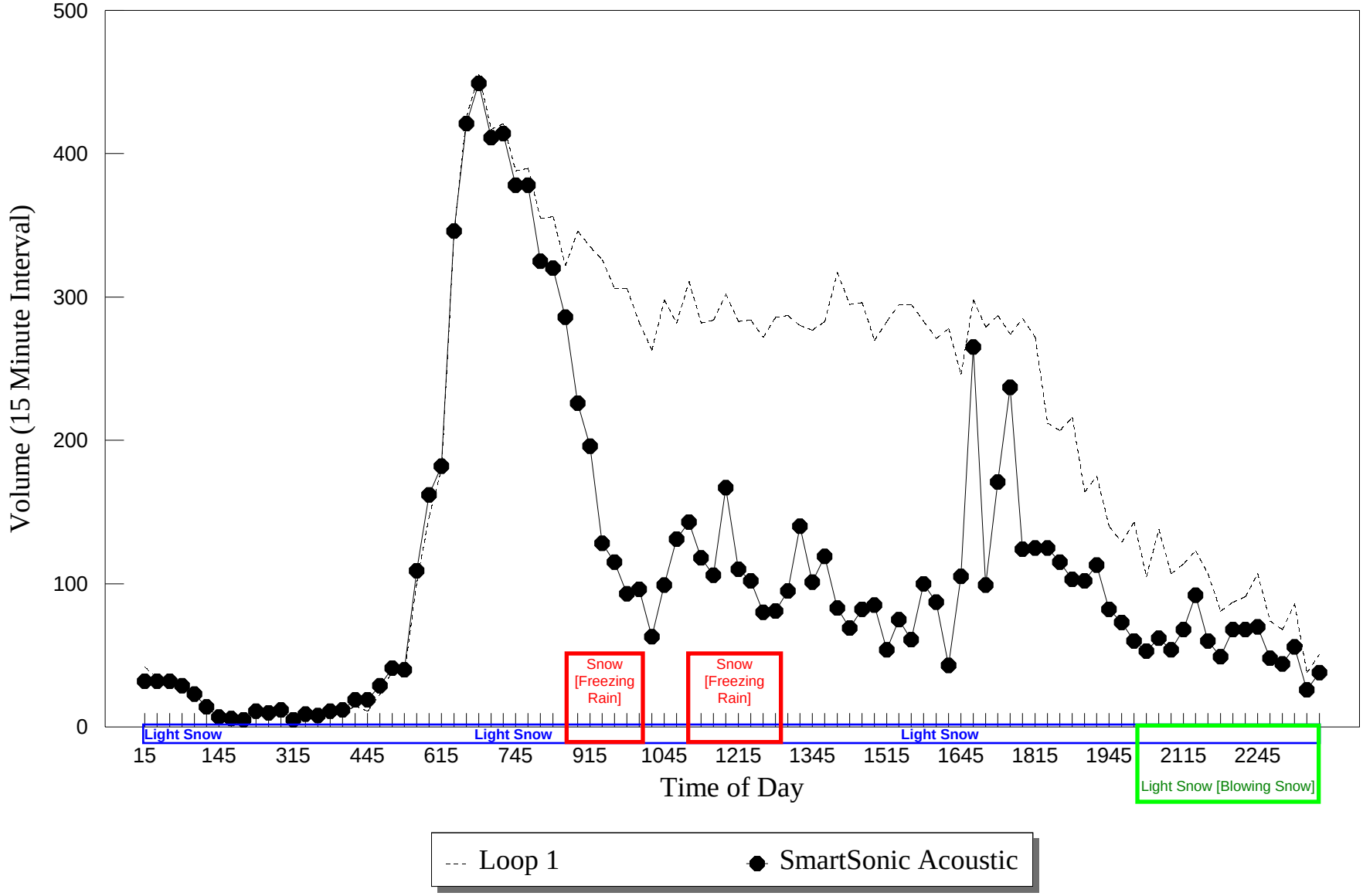


Figure B-13 Video Lighting Analysis
June 10, 1996

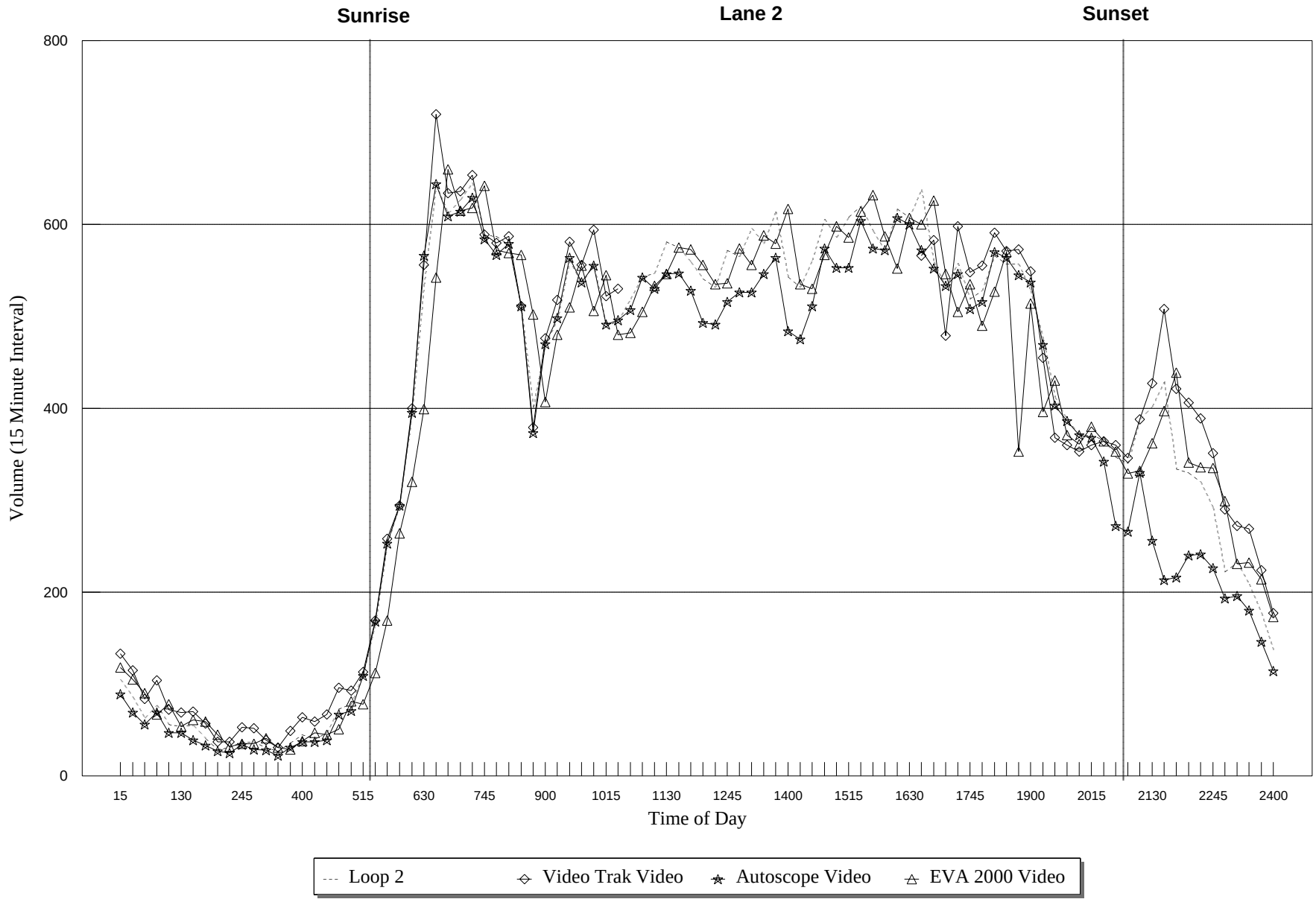


Figure B-14 Evening Transition Video Lighting Analysis
June 10, 1996

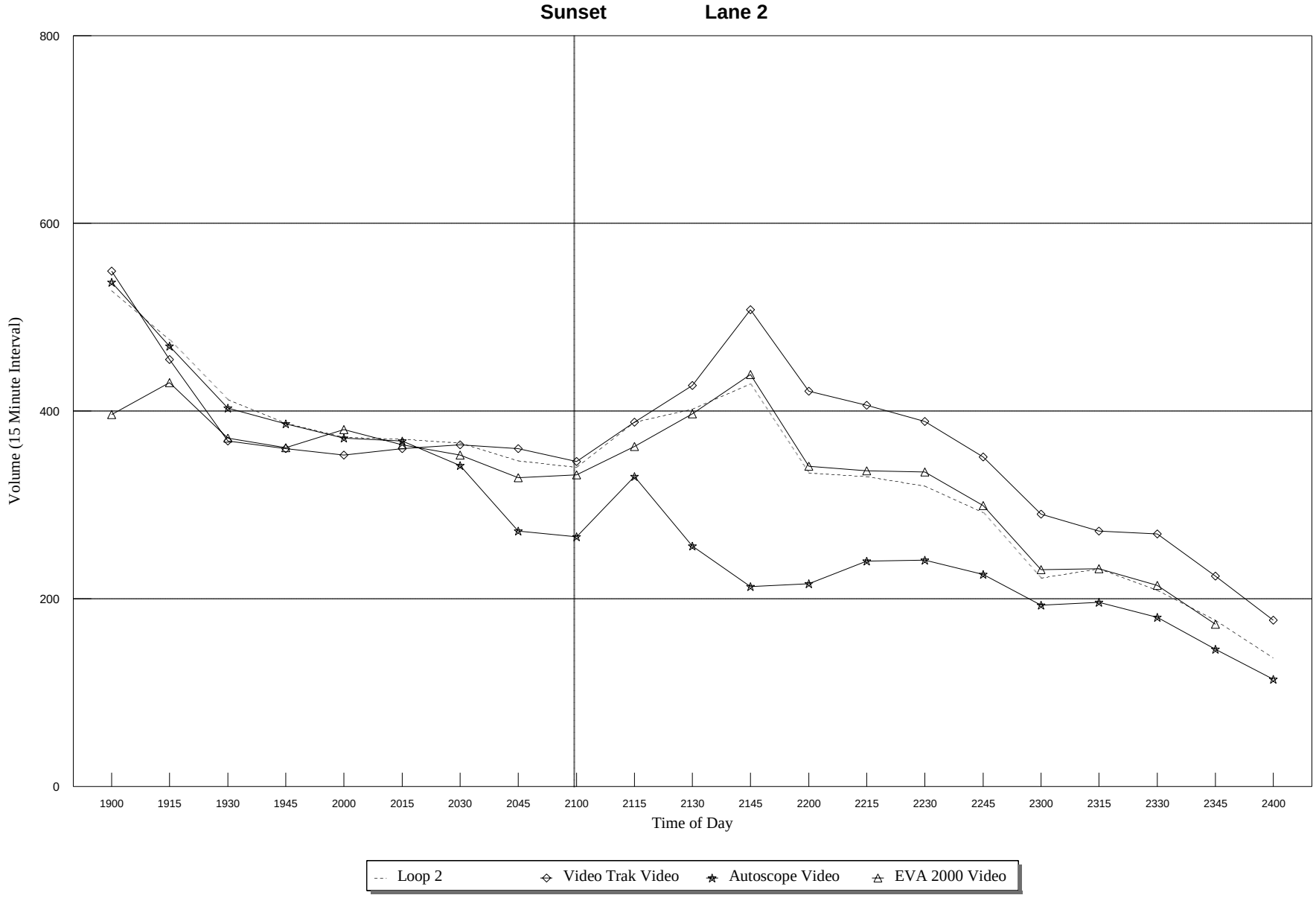


Figure B-15 Video Lighting Analysis Lane One

January 20, 1997

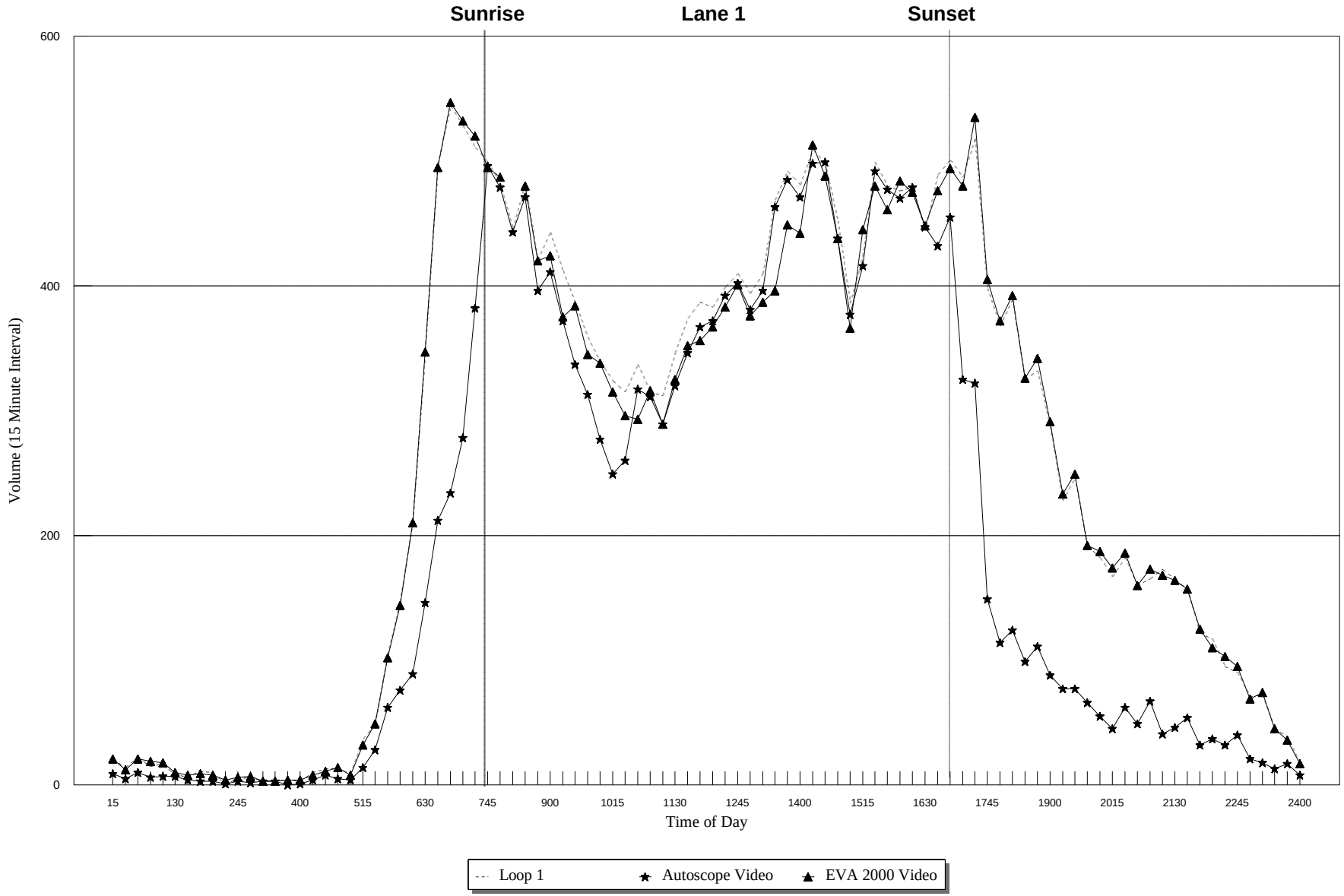


Figure B-16 Video Lighting Analysis Lane Two

January 20, 1997

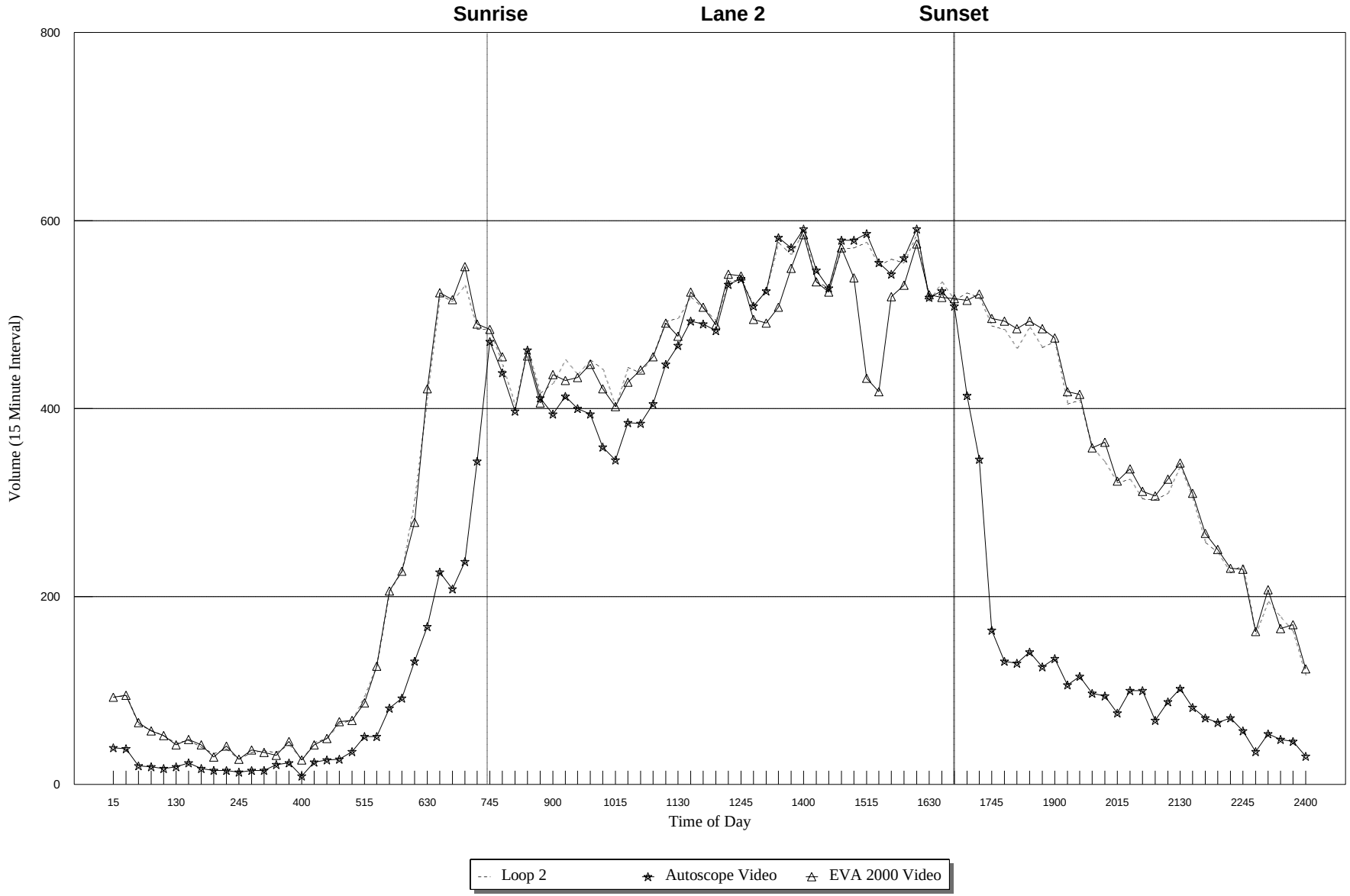


Figure B-17 Autoscope Video Wind Analysis - Continuous Test 6

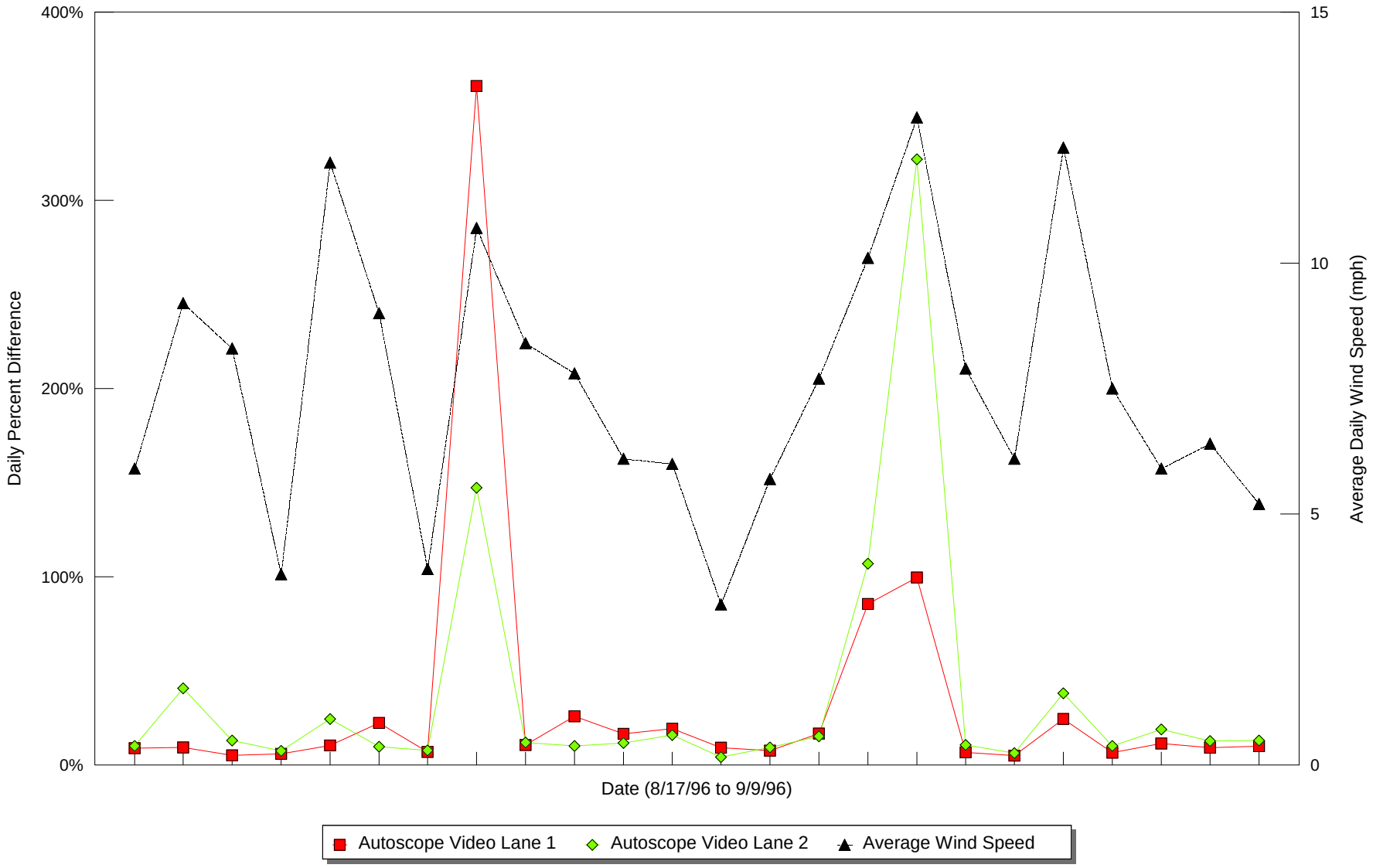
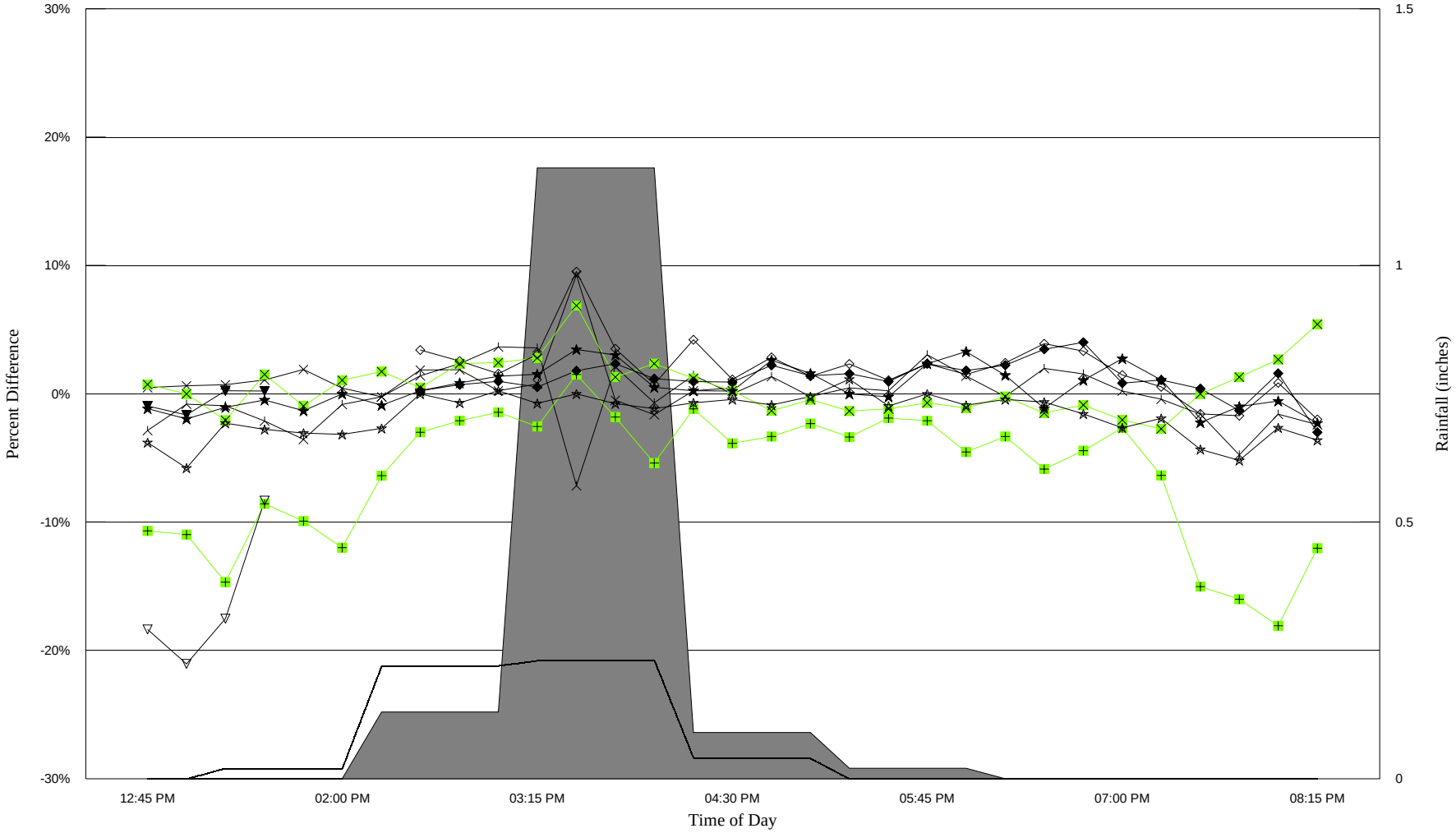


Figure B-18 8 - Hour Rainfall Analysis - June 6, 1996
(Rainfall for 6/6/96 from 12:45PM-8:15PM)



IR 224 Passive IR
Autosense I Active IR
TDN-30 Microwave
PODD Microwave
Video Trak Video (L1)
Video Trak Video (L2)
Autoscope Video (L1)
Autoscope Video (L2)
TraffiCam Video (L1)
TraffiCam Video (L2)
Rainfall (Trailer)
Rainfall (Airport)

Table B-1 8-Hour Rainfall Analysis - June 6, 1996

Time	Hourly Rainfall	IR 224 Passive IR	Autosense I Active IR	TDN-30 Microwave	PODD Microwave	Video Trak Video (L1)	Video Trak Video (L2)	Autoscope Video (L1)	Autoscope Video (L2)	TraffiCam Video (L1)	TraffiCam Video (L2)
12:00 PM	0	-1.2%	2.3%	-8.0%	-2.1%			-4.6%	-3.5%	-1.0%	-9.7%
12:15 PM	0	-3.6%	1.0%	-10.8%	0.3%			-0.9%	-4.1%	-0.8%	-7.0%
12:30 PM	0	-4.0%	0.2%	-14.1%	-1.2%			-0.2%	-7.5%	-0.5%	-19.1%
12:45 PM	0	-2.9%	0.5%	-10.7%	0.7%			-1.2%	-3.8%	-1.0%	-18.4%
01:00 PM	0	-0.8%	0.6%	-11.0%	0.0%			-2.0%	-5.8%	-1.7%	-21.0%
01:15 PM	0	-0.9%	0.7%	-14.7%	-2.1%			-1.1%	-2.3%	0.2%	-17.5%
01:30 PM	0	-2.1%	1.1%	-8.6%	1.5%			-0.5%	-2.8%	0.2%	-8.3%
01:45 PM	0	-3.5%	1.9%	-9.9%	-0.9%			-1.3%	-3.1%		
02:00 PM	0	-0.8%	0.4%	-12.0%	1.1%			0.0%	-3.2%		
02:15 PM	0.13	-0.2%	-0.2%	-6.4%	1.7%			-0.9%	-2.7%		
02:30 PM	0.13	1.4%	1.9%	-3.0%	0.5%	0.2%	3.4%	0.2%	0.0%		
02:45 PM	0.13	2.3%	1.9%	-2.1%	2.3%	0.7%	2.6%	0.9%	-0.7%		
03:00 PM	0.13	3.6%	0.2%	-1.5%	2.4%	1.0%	1.6%	1.3%	0.2%		
03:15 PM	1.19	3.6%	0.8%	-2.5%	2.8%	0.5%	3.1%	1.5%	-0.8%		
03:30 PM	1.19	-7.2%	9.3%	1.5%	6.9%	1.8%	9.5%	3.5%	0.0%		
03:45 PM	1.19	2.1%	-0.5%	-1.8%	1.3%	2.3%	3.5%	3.0%	-0.8%		
04:00 PM	1.19	-0.7%	-1.6%	-5.4%	2.3%	1.2%	0.7%	0.5%	-1.2%		
04:15 PM	0.09	1.4%	0.2%	-1.2%	1.2%	1.0%	4.2%	0.2%	-0.7%		
04:30 PM	0.09	0.0%	0.5%	-3.9%	0.2%	0.9%	1.1%	0.2%	-0.5%		
04:45 PM	0.09	1.3%		-3.3%	-1.3%	2.2%	2.8%	2.6%	-0.9%		
05:00 PM	0.09	-0.2%		-2.3%	-0.5%	1.4%	1.4%	1.6%	-0.2%		
05:15 PM	0.02	0.5%		-3.4%	-1.4%	1.6%	2.3%	0.0%	1.1%		
05:30 PM	0.02	0.2%		-1.9%	-1.2%	1.0%	1.0%	-0.3%	-1.0%		
05:45 PM	0.02	3.0%		-2.1%	-0.7%	2.3%	2.3%	2.3%	0.0%		
06:00 PM	0.02	1.4%		-4.5%	-1.1%	1.8%	1.5%	3.3%	-0.9%		
06:15 PM	0	-0.2%		-3.3%	-0.2%	2.2%	2.4%	1.4%	-0.4%		
06:30 PM	0	2.0%		-5.9%	-1.5%	3.5%	3.9%	-1.1%	-0.7%		
06:45 PM	0	1.6%		-4.4%	-0.9%	4.0%	3.3%	1.0%	-1.6%		
07:00 PM	0	0.2%		-2.7%	-2.0%	0.8%	1.5%	2.7%	-2.7%		
07:15 PM	0	-0.4%		-6.4%	-2.8%	1.1%	0.5%	1.1%	-1.9%		
07:30 PM	0	-1.6%		-15.0%	0.0%	0.4%	-1.6%	-2.2%	-4.3%		
07:45 PM	0	-4.8%		-16.0%	1.3%	-1.3%	-1.7%	-1.0%	-5.2%		
08:00 PM	0	-1.6%		-18.1%	2.7%	1.6%	0.9%	-0.6%	-2.7%		
08:15 PM	0	-2.4%		-12.0%	5.4%	-3.0%	-2.0%	-2.3%	-3.6%		
08:30 PM	0	0.6%		-13.6%	3.4%	-1.7%	0.0%	-3.7%	-6.3%		
08:45 PM	0	-1.1%		-13.2%	-1.6%	0.5%	-1.2%	-21.7%	-4.4%		
09:00 PM	0	-1.4%		-11.0%	1.0%	-1.4%	-0.3%	-20.3%	-6.2%		

Figure B-19 Freeway Temperature Analysis - Continuous Test Number 2

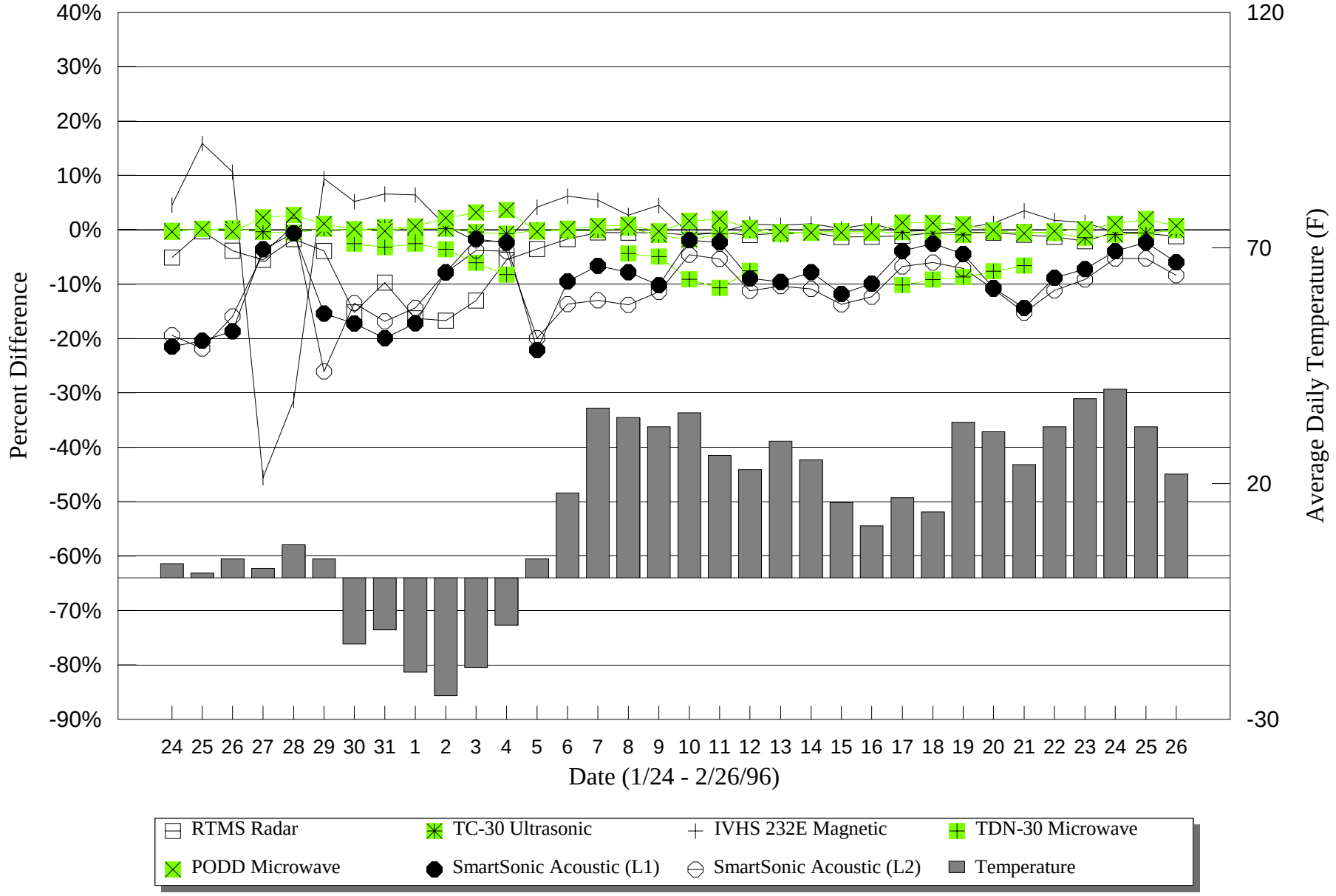
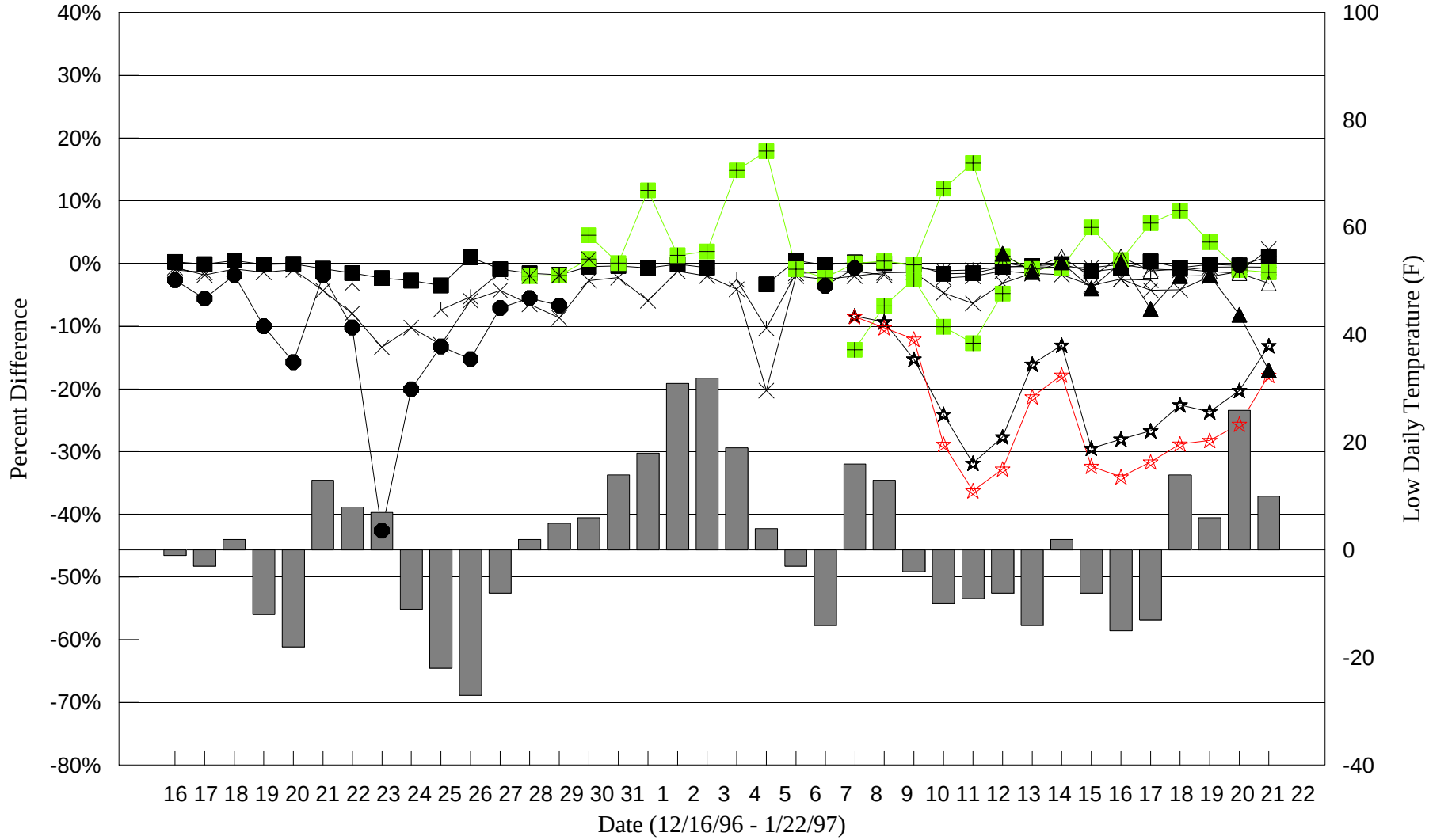


Figure B-20 Freeway Temperature Analysis - Continuous Test Number 10



RTMS Radar
TC-30 Ultrasonic
Lane King Ultrasonic
IR 224 Passive IR
Autosense I Active IR
TDN-30 Microwave
PODD Microwave
SmartSonic Acoustic
Autosccope Video (L1)
Autoscope Video (L2)
EVA 2000 Video (L1)
EVA 2000 Video (L2)
Temperature

Figure B-21 Freeway Snowfall Analysis - Continuous Test Number 10

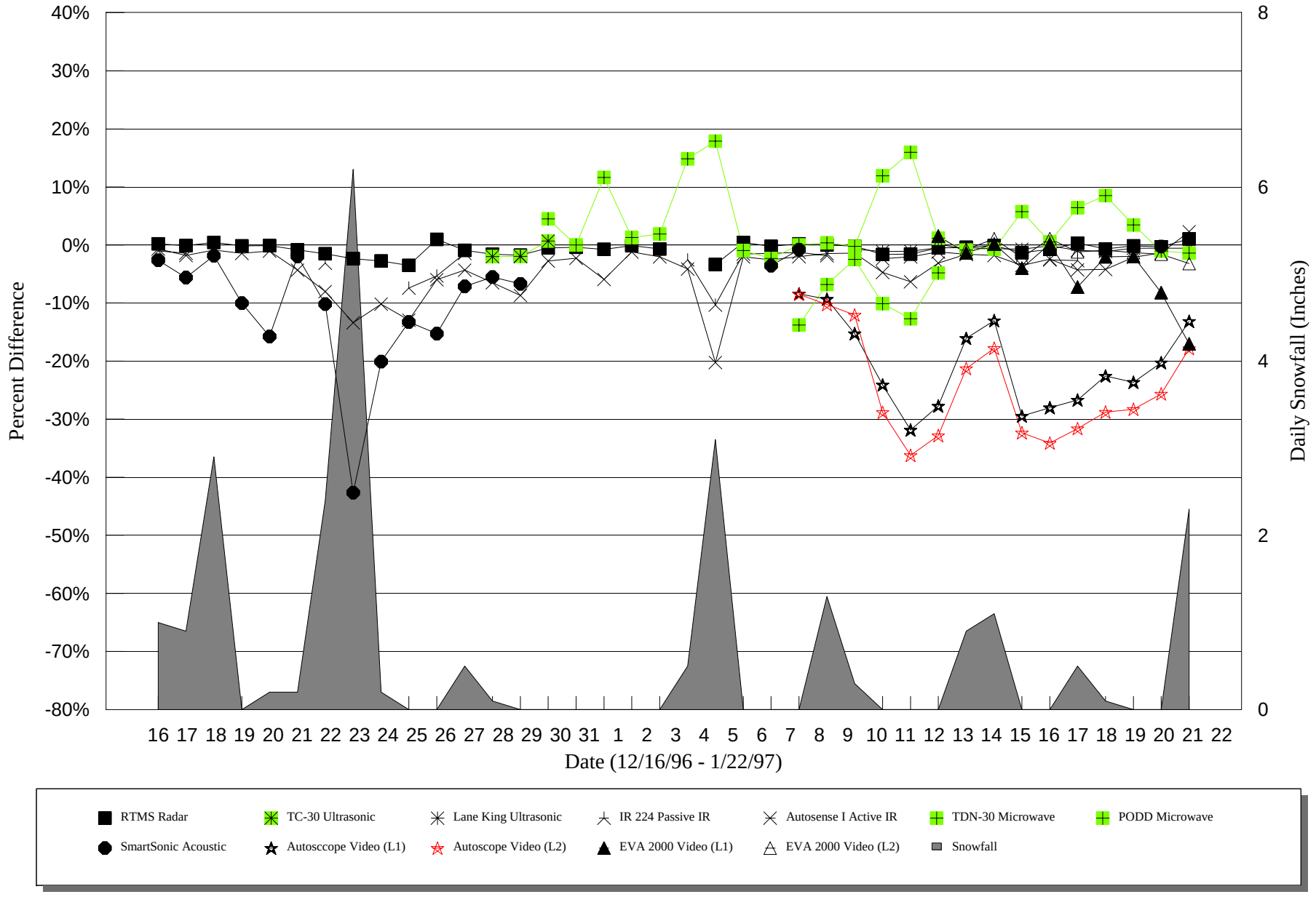


Table B-2 Classification Data

		Manual Count			Loop			Autoscope Video			EVA 2000 Video			Autosense I Active IR	
Test	Time	Class	Lane 1	Lane 2	Class	Lane 1	Lane 2	Class	Lane 1	Lane 2	Class	Lane 1	Lane 2	Class	Lane 1
24-hour	915 to 930	Car			Length 1	488	430	Class 1	481	423	Light	n/a	n/a	Low	364
Test 2		Light Truck	4	5	Length 2	2	6	Class 2	13	16	Heavy	n/a	n/a	High	161
		Medium Truck	4	15	Length 3	3	7	Class 3	1	18					
		Semi	2	27	Length 4	32	33								
		Bus		1											
					Total	525	476	Total	495	457					
	930 to 945	Car			Length 1	385	374	Class 1	368	357	Light	n/a	n/a	Low	272
		Light Truck	1	8	Length 2	2	5	Class 2	19	14	Heavy	n/a	n/a	High	121
		Medium Truck	5	11	Length 3	3	8	Class 3	1	13					
		Semi	1	21	Length 4	3	24								
		Bus		1											
					Total	393	411	Total	388	384					
24-hour	1000 to 1015	Car			Length 1	380	469	Class 1	377	459	Light	365	483	Low	n/a
Test 3		Light Truck	2	7	Length 2	0	9	Class 2	10	31	Heavy	3	33	High	n/a
		Medium Truck	1	22	Length 3	1	14	Class 3	2	30					
		Semi	3	27	Length 4	5	33								
		Bus		1											
					Total	386	525	Total	389	520	Total	368	516		
	1015 to 1030	Car			Length 1	377	457	Class 1	359	466	Light	361	493	Low	n/a
		Light Truck	1	12	Length 2	1	10	Class 2	21	35	Heavy	2	30	High	n/a
		Medium Truck	3	21	Length 3	4	23	Class 3	0	28					
		Semi	1	34	Length 4	1	33								
		Bus		4											
					Total	383	523	Total	380	529	Total	363	523		

Note: All classification data based on vehicle length except active infrared which is based on vehicle height.