Existing Arrival Pattern

A field study was conducted to ascertain the arrival patterns of traffic in the study area. Because of platooning, the arrival patterns of vehicles at intersections can be placed in one of five categories based on the time of arrival: at the beginning of its respective red phase, during the red phase, random, during the green phase, or at the beginning of the green phase. The five categories start at unfavorable conditions and end at favorable conditions. The results are shown in Table 2 below.

Table 2
Alban Towers
Arrival Pattern

Intersection Approach	Arrival Pattern	
	A.M. Peak Hour	**P.M. Peak Hour**
Massachusetts Avenue / Cathedral Avenue		
NB Massachusetts	Beginning of Green	Beginning of Green
SB Massachusetts	Beginning of Green	Beginning of Green
WB Cathedral	Beginning of Green	Beginning of Green
Wisconsin Avenue / Cathedral Avenue		
NB Wisconsin	Random	Random
SB Wisconsin	Random	Random
Wisconsin Avenue / Massachusetts Avenue		
NB Wisconsin	Beginning of Green	Beginning of Green
SB Wisconsin	Beginning of Green	Beginning of Green
EB Massachusetts	Beginning of Green	Beginning of Green
WB Massachusetts	Beginning of Green	Beginning of Green
Wisconsin Avenue / Garfield Street		
NB Wisconsin	Random	Random
SB Wisconsin	During Green	During Green
EB Garfield	Random	Random
WB Garfield	During Red	During Red

Board of Zoning Adjustment
District of Columbia
CASE NO.16586
EXHIBIT NO.27A3

Existing Average Cycle Length and Average Red Time

The average cycle length for the traffic signals in the study area is 90 seconds during both the A.M. and P.M. peak hours. The signal timings for all of the intersections are fixed so that the four intersections can be coordinated with each other. Since the traffic signal cycle lengths are the same, each of the signals can be coordinated so that there will be no queues extending into other intersections and progression along both Massachusetts Avenue and Wisconsin Avenue can be maintained.

Table 3
Alban Towers
Average Cycle Length and Average Red Time (in seconds)

	A.M. Peak Hour		P.M. Peak Hour	
	Cycle Length	Red Time	Cycle Length	Red Time
NB Massachusetts	90	21	90	21
SB Massachusetts	90	34	90	34
WB Cathedral	90	85	90	85
NB Wisconsin	90	0	90	0
SB Wisconsin	90	70	90	70
NB Wisconsin	90	62	90	62
SB Wisconsin	90	62	90	62
EB Massachusetts	90	38	90	38
WB Massachusetts	90	38	90	38
NB Wisconsin	90	65	90	65
SB Wisconsin	90	44	90	44
EB Garfield	90	67	90	67
WB Garfield	90	67	90	67

Existing Level of Service

Throughout this analysis, intersection capacity analyses have been conducted for peak hour traffic conditions at each intersection. The results of these capacity analyses are expressed in "levels of service" (LOS). All capacity analyses are based on the methods outlined by the Transportation Research Board's *Special Report 209: Highway Capacity Manual (HCM)*, 1998. Levels of service range from "A" (best) to "F" (worst), with LOS "D" or better considered by most agencies to be within acceptable limits. A brief description of each level of service for signalized and unsignalized intersections is provided below:

- **Signalized Intersections:** Level of service is based upon the traffic volume present in each lane on the roadway, the capacity of each lane at the intersection and the delay associated with each directional movement. The levels of service for signalized intersections are defined below:

- Level of Service A describes operations with very low average delay per vehicle, i.e., less than 10.0 seconds. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop. Short signal cycle lengths may also contribute to low delay.

- Level of Service B describes operations with average delay in the range of 10.1 to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.

- Level of Service C describes operations with delay in the range of 20.1 to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level although many still pass through the intersection without stopping. This is generally considered the lower end of the range of the acceptable level of service in rural areas.

- Level of Service D describes operations with delay in the range of 35.1 to 55.0 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and/or high traffic volumes as compared to the roadway capacity. Many vehicles are required to stop and the number of vehicles that do not have to stop declines. Individual signal cycle failures, where all waiting vehicles do not clear the intersection during a single green time, are noticeable. This is generally considered the lower end of the range of the acceptable level of service in urban areas.

- Level of Service E describes operations with delay in the range of 55.1 to 80.0 seconds per vehicle. These higher delay values generally indicate poor progression, long cycle lengths, and high traffic volumes. Individual cycle failures are frequent occurrences. LOS E has been set as the limit of acceptable conditions.

- Level of Service F describes operations with average delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when traffic arrives at a flow rate that exceeds the capacity of the intersection. It may also occur at high volumes with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such delays.

Table 4
Alban Towers
Existing Conditions Capacity Analysis
Level of Service (LOS), v/c (volume-to-capacity ratio), Intersection Delay (in seconds)

Intersection	A.M. Peak Hour			P.M. Peak Hour		
	LOS	v/c	Int. Delay	LOS	v/c	Int. Delay
Wisconsin/Garfield	F	1.21	112.2	D	0.84	36.1
NB	C	0.75	33.9	D	0.93	44.3
SB	F	1.71	139.9	B	0.59	16.5
EB	F	1.18	138.1	C	0.37	30.7
WB	F	1.24	189.9	E	0.98	79.0
Wisconsin/Massachusetts	D	0.96	41.2	C	0.67	21.5
NB	C	0.60	28.1	C	0.75	31.5
SB	F	1.09	82.8	C	0.69	29.8
EB	C	0.89	23.5	B	0.36	10.7
WB	B	0.31	10.3	B	0.63	13.9
Wisconsin/Cathedral	F	0.24	188.3	C	0.32	34.2
NB	A	0.24	0.1	A	0.32	0.2
SB	F	1.61	315.1	F	1.06	80.4
Massachusetts/Cathedral	B	0.30	14.4	A	0.47	9.8
NB	A	0.29	2.2	A	0.46	2.9
SB	B	0.81	16.7	B	0.69	15.3
WB	E	0.47	56.2	E	0.49	61.6

In order to maintain progression along southbound Wisconsin Avenue, southbound traffic at Wisconsin Avenue and Cathedral Avenue must be stopped for an extended period so that queues will not interfere with other intersections. This intersection experiences a failing level of service in existing conditions. It is expected that this intersection will continue to experience a failing level of service in the future.

FUTURE CONDITIONS ANALYSIS

Trip Generation

The proposed residential complex contains 226 apartment units and 15 attached housing units. A total of 271 parking spaces are provided in the garage underneath the building. There is a service drive which comes directly off of Garfield Street to the garage entrance. The proposed residential complex is located adjacent to the 30, 32, 34, 35, 36 Metrobus lines on Wisconsin Avenue and the N2, N4, N7 Metrobus lines on Massachusetts Avenue.

Vehicle trips typically generated by 226 apartment units and 15 attached housing units are 127 (116 trips for the apartment units and 11 for the attached housing units) and 154 (141 trips for the apartment units and 13 for the attached housing units) during the A.M. and P.M. peak hours, respectively. The developer has done extensive market research and expects 15% of the residents to be retirees, who generally do not generate peak hour trips. Normally in urban locations, 25% of residents use transit. Due to the socioeconomic characteristics of the expected residents, only 15% of the residents are expected to use transit. Overall, the trip reduction is expected to be 30%. The final trip generation is shown in the table below:

Table 5
Alban Towers
Trip Generation

	A.M. Peak Hour			P.M. Peak Hour		
	Inbound	Outbound	Total	Inbound	Outbound	Total
226 apartment units	19	97	116	94	47	141
15 attached housing units	2	9	11	9	4	13
Preliminary Total	21	106	127	103	51	154
15% Retiree reduction	*-3*	*-16*	*-19*	*-15*	*-8*	*-23*
15% Transit reduction	*-3*	*-16*	*-19*	*-15*	*-8*	*-23*
Final Trip Generation	**15**	**74**	**89**	**73**	**35**	**108**

Trip Assignment

Using the traffic volumes on Massachusetts Avenue and Wisconsin Avenue as a guide, 90% of trips depart to the east on Garfield Street and 10% of trips depart to the west on Garfield Street. Since there are numerous turn restrictions on Massachusetts Avenue and Wisconsin Avenue, vehicles must make their turn maneuvers at the signalized intersection of Garfield Street and Wisconsin Avenue. The residents are expected to travel to destinations in downtown D.C., northern Virginia, and suburban Maryland. Thus, the trip distribution at Garfield Street and Wisconsin Avenue reflect 50% of traffic headed straight toward eastbound Massachusetts Avenue and 20% each on northbound and southbound Wisconsin Avenue. These estimates apply to both inbound and outbound movements. The trip distribution is shown in Figure 4. The site trips associated with the residential complex are shown in Figure 5. The total future traffic volumes consist of the existing traffic volumes from Figure 3 with the site trips added from Figure 5. This is shown in Figure 6.

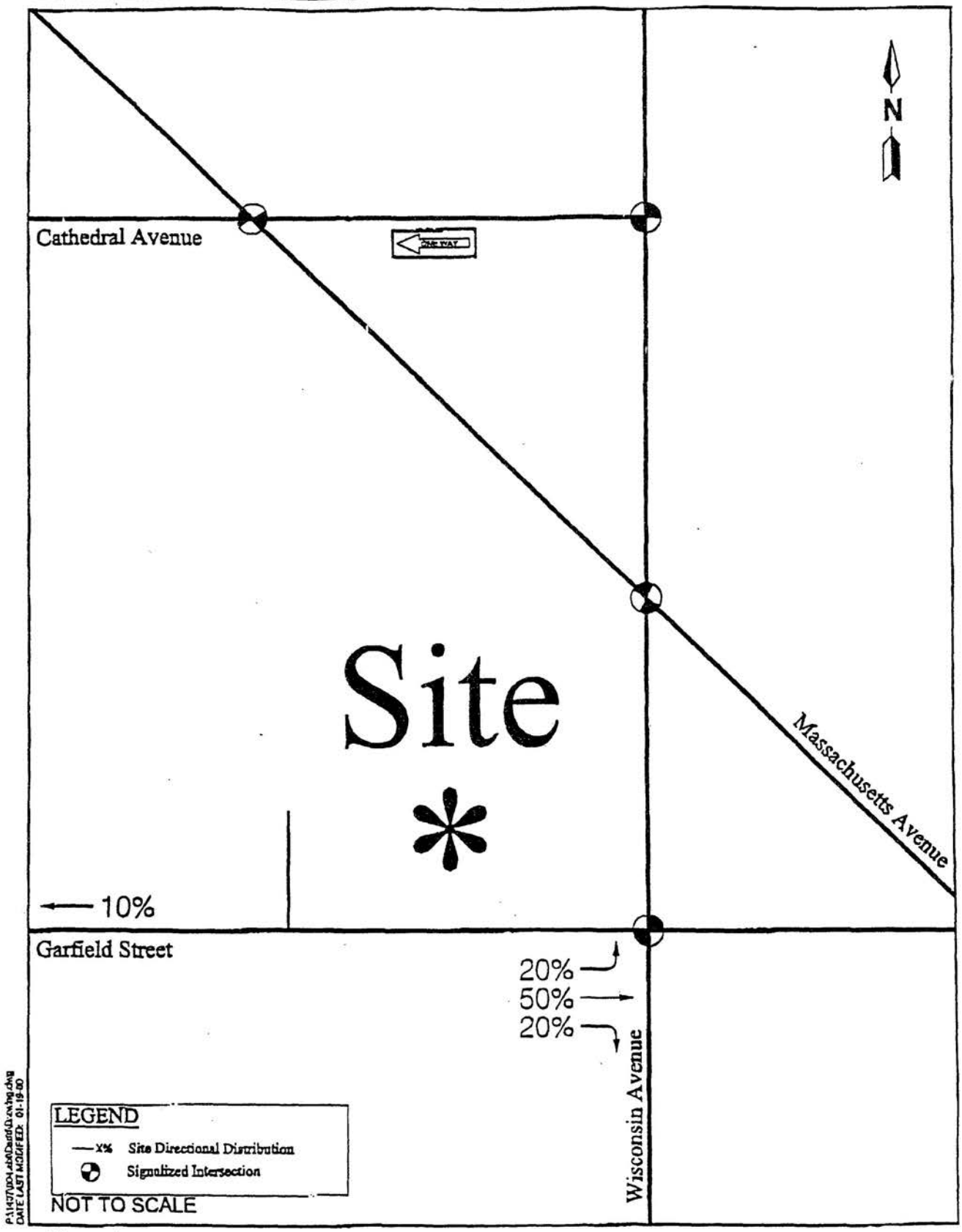


Figure 4
Site Directional Distribution

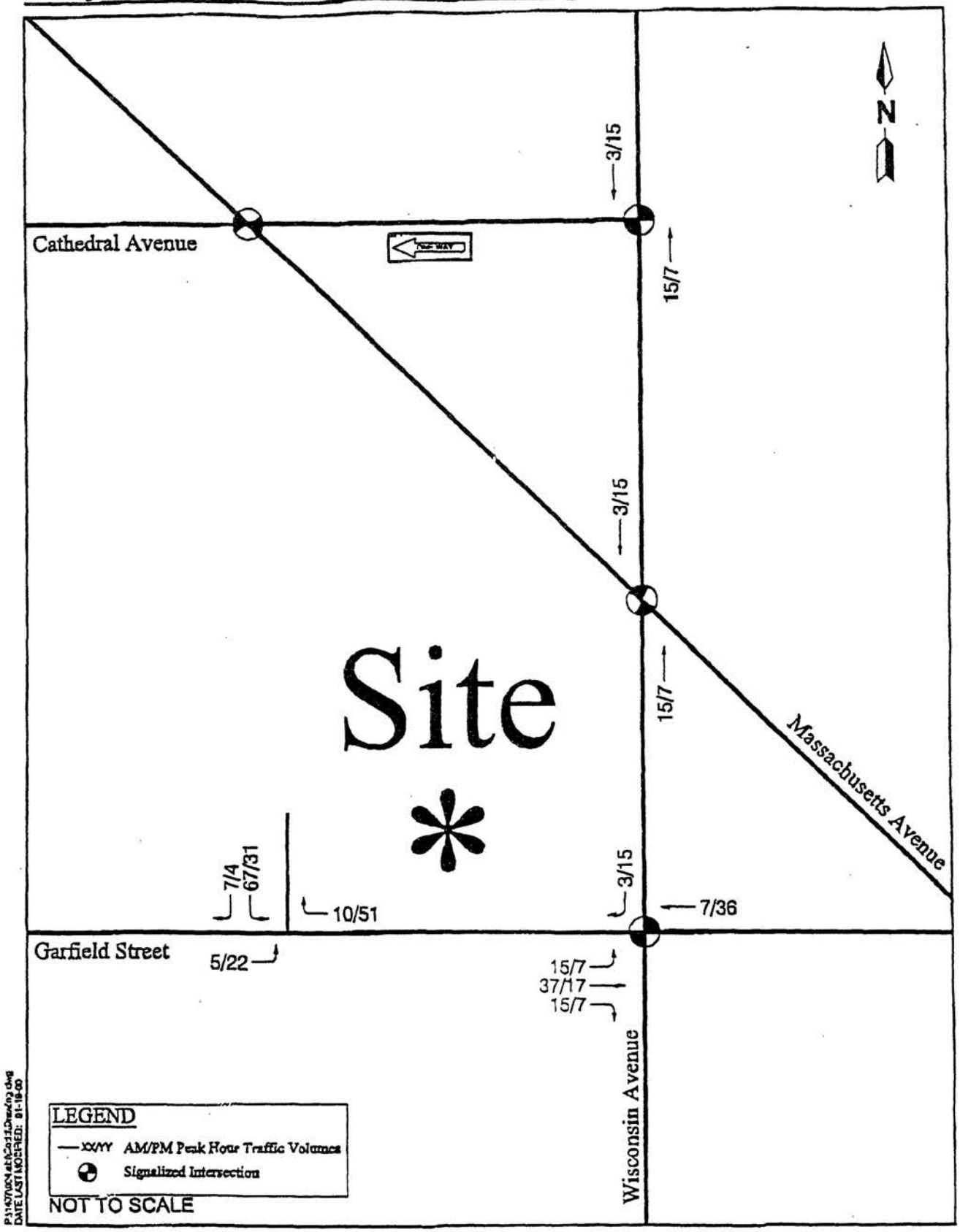


Figure 5
Site Traffic Volumes

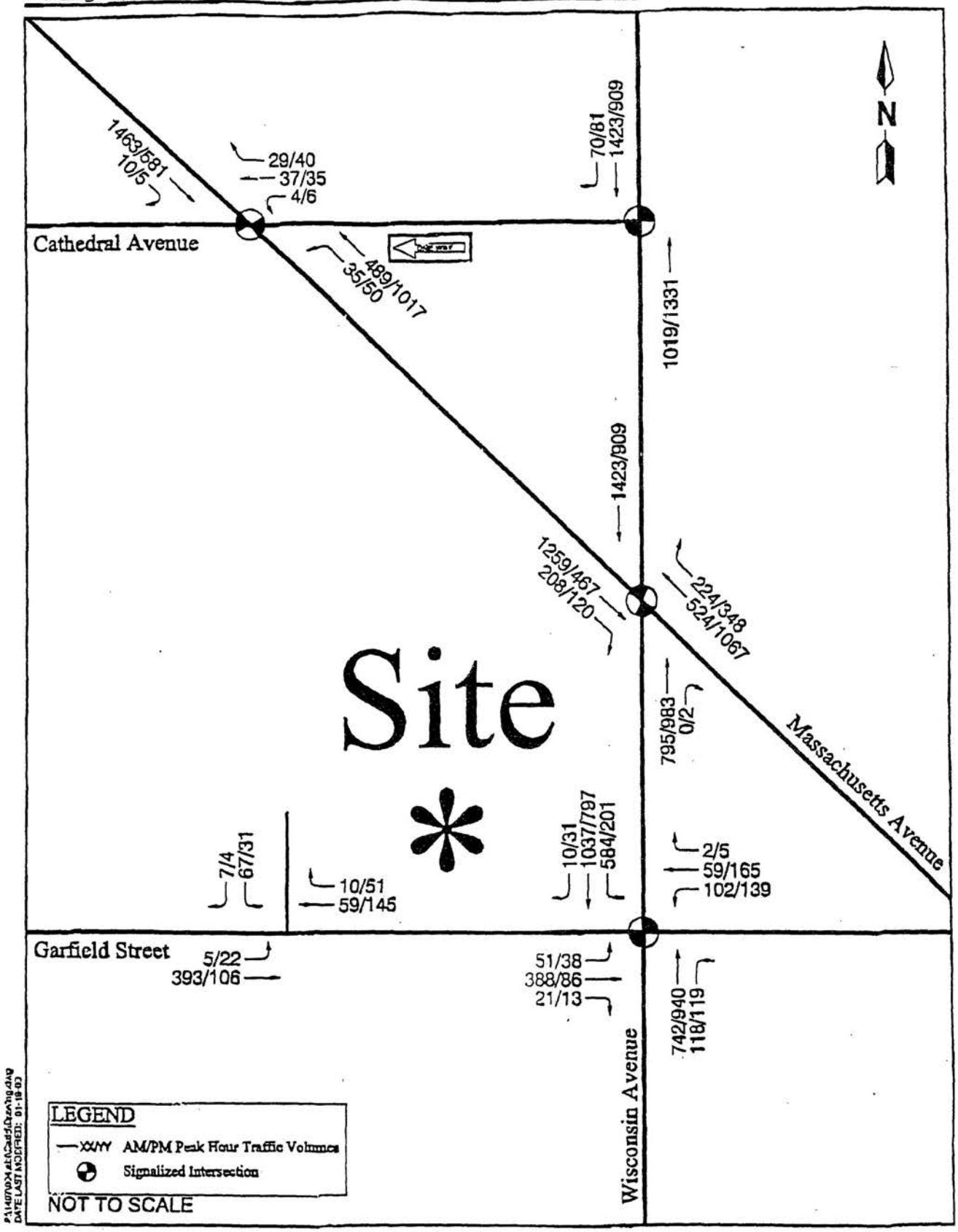


Figure 6
Total Future Traffic Volumes

Future Level of Service

Based on the additional traffic, the level of service, v/c ratio, and intersection delay are shown below in Table 6:

Table 6
Alban Towers
Total Future Conditions Capacity Analysis
Level of Service (LOS), v/c (volume-to-capacity ratio), Intersection Delay (in seconds)

Intersection	A.M. Peak Hour			P.M. Peak Hour		
	LOS	v/c	Int. Delay	LOS	v/c	Int. Delay
Wisconsin/Garfield *	F	1.26	80.8	D	0.88	37.1
NB	E	0.99	62.5	D	0.93	44.3
SB	F	1.44	96.4	B	0.69	19.6
EB	E	0.90	57.1	C	0.43	29.7
WB	E	0.88	67.7	E	0.97	73.6
Wisconsin/Massachusetts	D	0.96	41.4	C	0.68	21.7
NB	C	0.60	28.1	C	0.75	31.6
SB	F	1.09	82.8	C	0.69	30.1
EB	C	0.89	23.5	B	0.36	10.7
WB	B	0.31	10.3	B	0.63	13.9
Wisconsin/Cathedral	F	0.24	188.2	D	0.32	36.8
NB	A	0.24	0.1	A	0.32	0.2
SB	F	1.62	316.4	F	1.08	86.1
Massachusetts/Cathedral	B	0.30	14.4	A	0.47	9.8
NB	A	0.29	2.2	A	0.46	2.9
SB	B	0.81	16.7	B	0.69	15.3
WB	E	0.47	56.2	E	0.49	61.6

* At the intersection of Wisconsin Avenue and Garfield Street, the existing conditions will require changes to accommodate the rerouted traffic that occurred as a result of the temporary eastbound closure of Cathedral Avenue. After the construction on Cathedral Avenue is completed, traffic will return and result in reduced volumes on Garfield Street. Historical data for Cathedral Avenue is not available, but a transfer of 33% of the Garfield Street traffic is a conservatively low estimate. In addition, traffic on northbound Wisconsin Avenue is receiving ample green time during the traffic signal cycle while Garfield Street traffic could be better serviced with additional green time. The analysis above reflects this change and the impacts are shown in the section below.

Future Parameters

The existing traffic in the vicinity of the site has significant impacts on the transportation network. In order to accommodate the low trip generation of Alban Towers, minor signal timing adjustments can be made which will result in levels of service better than existing conditions.

The only changes to the transportation network will be average red time lengths. This will have no impact on average traffic cycle length, type of signal, nor arrival pattern. The average speeds may increase and will be estimated in the tables below, based on the level of service change, if any.

There will be reduced green time on southbound Wisconsin Avenue at Garfield Street as a result of the traffic signal timing changes. However, this reduction is only 2 seconds in the A.M. peak hour and 3 seconds in the P.M. peak hour. This will have no detrimental effect on the progression on the southbound Wisconsin Avenue corridor based on the intersection and approach delay at Garfield Street.

Table 7
Alban Towers
Average Cycle Length and Average Red Time (in seconds)

	A.M. Peak Hour		P.M. Peak Hour	
	Cycle Length	Red Time	Cycle Length	Red Time
NB Massachusetts	90	21	90	21
SB Massachusetts	90	34	90	34
WB Cathedral	90	85	90	85
NB Wisconsin	90	0	90	0
SB Wisconsin	90	70	90	70
NB Wisconsin	90	62	90	62
SB Wisconsin	90	62	90	62
EB Massachusetts	90	38	90	38
WB Massachusetts	90	38	90	38
NB Wisconsin	90	71	90	65
SB Wisconsin	90	46	90	47
EB Garfield	90	65	90	64
WB Garfield	90	65	90	64

Table 8
Alban Towers
Projected Average Speed

	Average Speed in 5 mph Increments	
	A.M. Peak Hour	P.M. Peak Hour
NB Massachusetts	25	30
SB Massachusetts	30	25
WB Cathedral	20	20
NB Wisconsin	35	35
SB Wisconsin	25	25
NB Wisconsin	30	30
SB Wisconsin	30	30
EB Massachusetts	25	25
WB Massachusetts	25	25
NB Wisconsin	30	30
SB Wisconsin	30	30
EB Garfield	15	15
WB Garfield	15	15

CONCLUSIONS

The results of the analysis show that the proposed residential complex will have no significant impact on the study area intersections after some signal timing adjustments and the construction completion of Cathedral Avenue. Wisconsin Avenue, Massachusetts Avenue, and Garfield Street have high volumes of traffic during the peak hours and have varying levels of service. The Wisconsin Avenue/Garfield Street intersections experiences significant delays during the peak hours, most prominently due to the closing of eastbound Cathedral Avenue. After Cathdral Avenue is re-opened and some minor tweaking of the traffic signal at Wisconsin Avenue and Garfield Street, the intersection will operate better than existing conditions. No other improvements are necessary for the operation of the roadway network and all of the other intersections will maintain their satisfactory levels of service.

P:\1407\004.abt\2000docs\abt0120r

APPENDIX C
MOBILE 5B INPUT AND OUTPUT FILES

	HDGV				HDDV				MC			
Year	DC	Mtg	Mix		DC	Mtg	Mix		DC	Mtg	Mix	
1	2.3	2.3	2.3	0.023	3.4	3.4	3.4	0.034	2.34	3.07	2.8875	0.029
2	4.7	4.7	4.7	0.047	6.7	6.7	6.7	0.067	4.94	5.26	5.18	0.052
3	4.7	4.7	4.7	0.047	6.7	6.7	6.7	0.067	8.25	6.27	6.765	0.068
4	4.7	4.7	4.7	0.047	6.7	6.7	6.7	0.067	14.56	6.33	8.3875	0.084
5	4.7	4.7	4.7	0.047	6.7	6.7	6.7	0.067	11.66	6.79	8.0075	0.080
6	3.8	3.8	3.8	0.038	7.3	7.3	7.3	0.073	7.43	9 9	9.2825	0.093
7	3.3	3.3	3.3	0.033	6.1	6.1	6.1	0.061	9.1	7	7.525	0.075
8	2.1	2.1	2.1	0.021	4	4	4	0.040	13.55	5.37	7.415	0.074
9	2.6	2.6	2.6	0.026	4.1	4.1	4.1	0.041	9.29	6.79	7.415	0.074
10	2.9	2.9	2.9	0.029	5.1	5.1	5.1	0.051	7.92	8.88	8.64	0.086
11	3.4	3.4	3.4	0.034	5.3	5.3	5.3	0.053	5.35	6 26	6.0325	0.060
12	6.4	6.4	6.4	0.064	6.6	6.6	6.6	0.066	5.61	28.09	22.47	0.225
13	5.4	5.4	5.4	0.054	5.5	5.5	5.5	0.055			0	0.000
14	5.8	5.8	5.8	0.058	5.7	5.7	5.7	0.057			0	0.000
15	5.1	5.1	5.1	0.051	4.5	4.5	4.5	0.045			0	0.000
16	3.8	3.8	3.8	0.038	1.9	1.9	1.9	0.019			0	0.000
17	4.3	4.3	4.3	0.043	2.3	2.3	2.3	0.023			0	0.000
18	4.1	4.1	4.1	0.041	2.8	2.8	2.8	0.028			0	0.000
19	3.5	3.5	3.5	0.035	2.4	2.4	2.4	0.024			0	0.000
20	2.9	2.9	2.9	0.029	1.6	1.6	1.6	0.016			0	0.000
21	2.1	2.1	2.1	0.021	1.1	1.1	1.1	0.011			0	0.000
22	2.2	2.2	2.2	0.022	0.9	0.9	0.9	0.009			0	0.000
23	2.2	2.2	2.2	0.022	0.7	0.7	0.7	0.007			0	0.000
24	1.4	1.4	1.4	0.014	0.5	0.5	0.5	0.005			0	0.000
25	11.7	11.7	11.7	0.117	1.6	1.6	1.6	0.016			0	0.000
			100.1		100.2	100.2	100.2				100.0075	

	LDGV AND LDDV				LDTGT1 AND LDDT				LDGT2			
Year	DC	Mtg	Mix		DC	Mtg	Mix		DC	Mtg	Mix	
1	4.84	4.62	4.675	0.047	12.2	8.99	9.7925	0.098	5.71	3.58	4.1125	0.041
2	9.19	9.81	9.655	0.097	18.05	15.3	15.9875	0.160	8.76	8.68	8.7	0.087
3	9.74	9.83	9.8075	0.098	12.1	15.55	14.6875	0.147	8.62	11.29	10.6225	0.106
4	8.74	10.57	10.1125	0.101	11.1	14.51	13.6575	0.137	7.35	11.52	10.4775	0.105
5	8.21	11.04	10.3325	0.103	7.88	12.22	11.135	0.111	5.66	10.57	9.3425	0.093
6	7.89	10.61	9.93	0.099	5.54	9.26	8.33	0.083	4.02	12.19	10.1475	0.101
7	5.77	8.77	8.02	0.080	4.15	7.05	6.325	0.063	4.35	8.02	7.1025	0.071
8	5.11	7.83	7.15	0.072	2.79	5.13	4.545	0.045	4.37	6.96	6.3125	0.063
9	5.17	5.25	5.23	0.052	2.82	2.39	2.4975	0.025	9.21	4.39	5.595	0.056
10	5.1	3.99	4.2675	0.043	2.3	1.32	1.565	0.016	9.3	2.99	4.5675	0.046
11	5.77	3.39	3.985	0.040	2.19	1.02	1.3125	0.013	8.02	2.36	3.775	0.038
12	5.46	2.79	3.4575	0.035	2.02	0.8	1.105	0.011	5.63	2.25	3.095	0.031
13	4.63	2.53	3.055	0.031	1.38	1.71	1.6275	0.016	3.24	3.37	3.3375	0.033
14	3.52	2.01	2.3875	0.024	2.59	1.37	1.675	0.017	3.11	2.67	2.78	0.028
15	2.18	1.49	1.6625	0.017	2.31	0.96	1.2975	0.013	2.63	2.06	2.2025	0.022
16	1.94	0.93	1.1825	0.012	2.2	0.68	1.06	0.011	2.08	1.43	1.5925	0.016
17	1.75	0.54	0.8425	0.008	1.47	0.37	0.645	0.006	1.49	0.84	1.0025	0.010
18	1.3	0.51	0.7075	0.007	1.25	0.3	0.5375	0.005	1.33	0.9	1.0075	0.010
19	0.92	0.52	0.62	0.006	1.28	0.34	0.575	0.006	1.21	0.79	0.895	0.009
20	0.62	0.49	0.5225	0.005	0.89	0.22	0.3875	0.004	0.71	0.81	0.785	0.008
21	0.47	0.36	0.3875	0.004	0.69	0.17	0.3	0.003	0.51	0.48	0.4875	0.005
22	0.39	0.31	0.33	0.003	0.62	0.08	0.215	0.002	0.56	0.45	0.4775	0.005
23	0.31	0.3	0.3025	0.003	0.55	0.08	0.1975	0.002	0.51	0.39	0.42	0.004
24	0.23	0.24	0.2375	0.002	0.41	0.05	0.14	0.001	0.35	0.25	0.275	0.003
25	0.78	1.28	1.155	0.012	1.24	0.14	0.415	0.004	1.27	0.76	0.8875	0.009
			100.015		100.02	100.01	100.0125		100	100	100	

JANUARY
30 MPH

```
1                       PROMPT
MOBILE5B ST ALBAN TOWER
1                       TAMFLG
4                       SPDFLG
3                       VMFLAG
3                       MYMRFG
1                       NEWFLAG
3                       IMFLAG
1                       ALHFLG
8                       ATPFLG
5                       RLFLAG
1                       LOCFLG
1                       TEMFLG
3                       OUTFMT
4                       PRTFLG
1                       IDLFLG
2                       NMGFLG
3                       HCFLAG
.820.091.014.016.014.000.029.016                                        VMT
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                      LDGV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                      LDGT1
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .041 .087 .106 .105 .093 .101 .071 .063 .056 .046                      LDGT2
 .038 .031 .033 .028 .022 .016 .010 .010 .009 .008
 .005 .005 .004 .003 .009
 .023 .047 .047 .047 .047 .038 .033 .021 .026 .029                      HDGV
 .034 .064 .054 .058 .051 .038 .043 .041 .035 .029
 .021 .022 .022 .014 .116
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                      LDDV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                      LDDT
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .034 .067 .067 .066 .066 .073 .061 .040 .041 .051                      HDDV
 .053 .066 .055 .057 .045 .019 .023 .028 .024 .016
 .011 .009 .007 .005 .016
 .029 .052 .068 .084 .080 .093 .075 .074 .074 .086                      MC
 .060 .225 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .000 .000
83 40 68 20 03 03 096 1 2 2211 2211 220. 1.20 999.                      IM-BASIC
83 40 81 20 03 03 096 1 2 2221 4211 0.80 20.0 2.00                      IM240 PROG
83 75 20 2221 12 096. 22211111                                      ATP-ATP PROGRAMS
83 75 20 2221 12 096.                                               ATP-PRESSURE CK
83 81 20 2221 12 096.                                               ATP-PURGE TEST
 16.6 33.9 23.4 13.3 06.1 06.7                                      TRIP LENGTH DIST
1 01 30.0 25.0 20.6 27.3 20.6  1                                SCENERIO DESCRIPTION
STALBANTOWER_JAN B  20.  30.  7.8  7.8 20 1 1 2                        LAP RECORD
```

```
1MOBILE5B ST ALBAN TOWER
 MOBILE5b (14-Sep-96)
0
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M170 Warning:
+              Exhaust emissions for gasoline fueled vehicles
               beginning in 1995 have been reduced as a result of
               Gasoline Detergent Additive Regulations (1994).
-M 83 Comment:
+              One or more evaporative temperatures (input daily
               maximum, input ambient, calculated hot soak, and/or
               calculated running loss) is 40F or less, or input
               daily minimum is 25F or less; no evaporative emission
               factors (hot soak, diurnal, running loss, or resting
               loss) will be calculated
 M112 Warning:
+              Wintertime Reformulated Gasoline Rules Apply
 .             See Section 2.2.16 of the User Guide
0I/M program #1 selected:                    I/M program #2 selected:

0Start year (Jan 1):  1983                   Start year (Jan 1):  1983
 Pre-1981 stringency: 40%                    Pre-1981 stringency: 40%
 First MYR covered:   1968                   First MYR covered:   1981
 Last MYR covered:    2020                   Last MYR covered:    2020
 Waiver (pre-1981):    3.%                   Waiver (pre-1981):    3.%
 Waiver (1981+):       3.%                   Waiver (1981+):       3.%
 Compliance Rate:     96.%                   Compliance Rate:     96.%
 Inspection type:                            Inspection type:
 Test Only                                   Test Only
 Inspection frequency: Biennial              Inspection frequency: Biennial
 I/M program #1 vehicle types                I/M program #2 vehicle types
      LDGV - Yes                                  LDGV - Yes
     LDGT1 - Yes                                 LDGT1 - Yes
     LDGT2 - No                                  LDGT2 - Yes
      HDGV - No                                   HDGV - No
 1981 & later MYR test type:                 1981 & later MYR test type:
      2500 rpm / Idle                             IM240 test
 Cutpoints, HC:   220.000                    Cutpoints, HC:     0.800
```

```
 Cutpoints, CO:     1.200                          Cutpoints, CO:    20.000
 Cutpoints, NOx:  999.000                          Cutpoints, NOx:    2.000

  Low alt, Annl and Bien Insp Freq TECH 1 & 2 I/M cred data
 Bien Insp Freq & TECH 4+ I/M credit 2500/Idle test data
 Bien Insp Freq & TECH 4+ I/M credit IM240 test data
0Functional Check Program Description:
0Check Start Model Yrs Vehicle Classes Covered    Inspection         Comp   Eff
      (Jan1) Covered   LDGV LDGT1 LDGT2 HDGV   Type         Freq      Rate   Adj
 Press 1983  1975-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
 Purge 1983  1981-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
 ATP   1983  1975-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
0Air pump system disablements:       Yes  Catalyst removals:                 Yes
 Fuel inlet restrictor disablements: Yes  Tailpipe lead deposit test:         No
 EGR disablement:                    No   Evaporative system disablements:   No
 PCV system disablements:            No   Missing gas caps:                  No
0Non-methane HC emission factors include all evaporative HC emission factors, except for refueling emissions.
0
0Emission factors are as of Jan. 1st of the indicated calendar year.
0User supplied veh registration distributions.
0Cal. Year: 2001        I/M Program: Yes       Ambient Temp: 28.0 / 28.0 / 28.0 (F) Region: Low
                Anti-tam. Program: Yes     Operating Mode: 20.6 / 27.3 / 20.6   Altitude:  500. Ft.
                 Reformulated Gas: Yes          ASTM Class: B
0STALBANTOWER_JAN                          Minimum Temp:  20. (F)         Maximum Temp:  30. (F)
                     Period 1 RVP:  7.8    Period 2 RVP:  7.8        Period 2 Start Yr: 2020
0  Veh. Type:       LDGV     LDGT1     LDGT2      LDGT      HDGV      LDDV      LDDT      HDDV      MC      All Veh
+
 Veh. Speeds:      30.0      30.0      30.0                30.0      30.0      30.0      30.0      30.0
     VMT Mix:     0.820     0.091     0.014               0.016     0.014     0.000     0.029     0.016
0Composite Emission Factors (Gm/Mile)
 Non-Meth HC:      0.93      0.91      1.45      0.99      2.05      0.37      0.43      1.51      2.39      0.985
 Exhaust  HC:      0.92      0.91      1.45      0.99      2.03      0.37      0.43      1.51      2.39      0.980
 Evaporat HC:      0.01      0.00      0.00      0.00      0.01                                    0.00      0.006
 Refuel L HC:      0.00      0.00      0.00      0.00      0.00                                              0.000
 Runing L HC:      0.00      0.00      0.00      0.00      0.00                                              0.000
 Rsting L HC:      0.00      0.00      0.00      0.00      0.00                                    0.00      0.000
 Exhaust  CO:     10.82     11.58     16.32     12.22     30.22      0.94      0.00      7.36     19.32     11.176
 Exhaust NOX:      1.30      1.12      1.87      1.22      5.54      1.04      0.00      9.54      1.27      1.594
0Evaporative Emissions by Component                 Weathered RVP:  8.1          Hot Soak Temp: 25.0 (F)
 (Hot Soak: g/trip, Diurnals: g, Crankcase: g/mi, Refuel: g/gal, Resting: g/hr)  Running Loss Temp: 25.0 (F)
                                                                                 Resting Loss Temp: 25.0 (F)
 Hot Soak          0.00      0.00      0.00      0.00      0.00                                    0.00
 WtDiurnal         0.00      0.00      0.00      0.00      0.00                                    0.00
 Multiple          0.00      0.00      0.00      0.00      0.00
 Crankcase         0.01      0.00      0.00      0.00      0.01                                    0.00
```

Refuel	0.00	0.00	0.00	0.00	0.00		
Resting	0.00	0.00	0.00	0.00	0.00		0.00

JANUARY
25 MPH

```
1                       PROMPT
MOBILE5B ST ALBAN TOWER
1                       TAMFLG
4                       SPDFLG
3                       VMFLAG
3                       MYMRFG
1                       NEWFLAG
3                       IMFLAG
1                       ALHFLG
8                       ATPFLG
5                       RLFLAG
1                       LOCFLG
1                       TEMFLG
3                       OUTFMT
4                       PRTFLG
1                       IDLFLG
2                       NMGFLG
3                       HCFLAG
.820.091.014.016.014.000.029.016                                    VMT
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                  LDGV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                  LDGT1
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .041 .087 .106 .105 .093 .101 .071 .063 .056 .046                  LDGT2
 .038 .031 .033 .028 .022 .016 .010 .010 .009 .008
 .005 .005 .004 .003 .009
 .023 .047 .047 .047 .047 .038 .033 .021 .026 .029                  HDGV
 .034 .064 .054 .058 .051 .038 .043 .041 .035 .029
 .021 .022 .022 .014 .116
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                  LDDV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                  LDDT
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .034 .067 .067 .066 .066 .073 .061 .040 .041 .051                  HDDV
 .053 .066 .055 .057 .045 .019 .023 .028 .024 .016
 .011 .009 .007 .005 .016
 .029 .052 .068 .084 .080 .093 .075 .074 .074 .086                  MC
 .060 .225 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .000 .000
83 40 68 20 03 03 096 1 2 2211 2211 220. 1.20 999.                  IM-BASIC
83 40 81 20 03 03 096 1 2 2221 4211 0.80 20.0 2.00                  IM240 PROG
83 75 20 2221 12 096. 22211111                                   ATP-ATP PROGRAMS
83 75 20 2221 12 096.                                            ATP-PRESSURE CK
83 81 20 2221 12 096.                                            ATP-PURGE TEST
 16.6 33.9 23.4 13.3 06.1 06.7                                   TRIP LENGTH DIST
1 01 25.0 25.0 20.6 27.3 20.6  1                              SCENERIO DESCRIPTION
STALBANTOWER_JAN B  20.  30.  7.8  7.8 20 1 1 2                   LAP RECORD
```

```
1MOBILE5B ST ALBAN TOWER
 MOBILE5b (14-Sep-96)
0
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M170 Warning:
+              Exhaust emissions for gasoline fueled vehicles
               beginning in 1995 have been reduced as a result of
               Gasoline Detergent Additive Regulations (1994).
-M 83 Comment:
+              One or more evaporative temperatures (input daily
               maximum, input ambient, calculated hot soak, and/or
               calculated running loss) is 40F or less, or input
               daily minimum is 25F or less; no evaporative emission
               factors (hot soak, diurnal, running loss, or resting
               loss) will be calculated.
-M112 Warning:
+              Wintertime Reformulated Gasoline Rules Apply
              See Section 2.2.16 of the User Guide
0I/M program #1 selected:

0Start year (Jan 1):  1983
 Pre-1981 stringency: 40%
 First MYR covered:   1968
 Last MYR covered:    2020
 Waiver (pre-1981):    3.%
 Waiver (1981+):       3.%
 Compliance Rate:     96.%
 Inspection type:
 Test Only
 Inspection frequency: Biennial
 I/M program #1 vehicle types
      LDGV - Yes
     LDGT1 - Yes
     LDGT2 - No
      HDGV - No
 1981 & later MYR test type:
      2500 rpm / Idle
 Cutpoints, HC:   220.000

I/M program #2 selected:

Start year (Jan 1):  1983
Pre-1981 stringency: 40%
First MYR covered:   1981
Last MYR covered:    2020
Waiver (pre-1981):    3.%
Waiver (1981+):       3.%
Compliance Rate:     96.%
Inspection type:
Test Only
Inspection frequency: Biennial
I/M program #2 vehicle types
     LDGV - Yes
    LDGT1 - Yes
    LDGT2 - Yes
     HDGV - No
1981 & later MYR test type:
     IM240 test
Cutpoints, HC:     0.800
```

```
 Cutpoints, CO:     1.200                          Cutpoints, CO:    20.000
 Cutpoints, NOx:  999.000                          Cutpoints, NOx:    2.000

  Low alt, Annl and Bien Insp Freq TECH 1 & 2 I/M cred data
 Bien Insp Freq & TECH 4+ I/M credit 2500/Idle test data
 Bien Insp Freq & TECH 4+ I/M credit IM240 test data
0Functional Check Program Description:
0Check Start Model Yrs Vehicle Classes Covered    Inspection        Comp   Eff
      (Jan1) Covered   LDGV LDGT1 LDGT2 HDGV   Type        Freq     Rate   Adj
 Press 1983  1975-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
 Purge 1983  1981-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
 ATP   1983  1975-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
0Air pump system disablements:       Yes  Catalyst removals:                  Yes
 Fuel inlet restrictor disablements: Yes  Tailpipe lead deposit test:         No
 EGR disablement:                    No   Evaporative system disablements:    No
 PCV system disablements:            No   Missing gas caps:                   No
0Non-methane HC emission factors include all evaporative HC emission factors, except for refueling emissions.
0
0Emission factors are as of Jan. 1st of the indicated calendar year.
0User supplied veh registration distributions.
0Cal. Year: 2051          I/M Pr: Gas  Yes        Ambient Temp: 28.0 / 28.0 / 28.0 (F) Region: Low
                  Anti-Tam Pr: Gas  Yes        Operating Mode: 20.6 / 27.3 / 20.6   Altitude:  500. Ft.
                  Evap Canister Eff. Yes          ASTM Class: B
USTALBANY_Lake_2A5                              Minimum Temp:  20. (F)          Maximum Temp:  30. (F)
                  Period 1 RVP:  7.8            Period 2 RVP:  7.8        Period 2 Start Yr: 2020
0  Veh. Type:       LDGV      LDGT1     LDGT2      LDGT      HDGV      LDDV      LDDT      HDDV      MC      All Veh
+                  ------    ------    ------     ------    ------    ------    ------    ------    ------    -------
 Veh. Speeds:      25.0      25.0      25.0                   25.0      25.0      25.0      25.0      25.0
     VMT Mix:       0.820     0.091     0.014                  0.016     0.014     0.000     0.029     0.016
0Composite Emission Factors (Gm/Mile)
 Non-Meth HC:       1.10      1.06      1.69      1.14       2.64      0.43      0.50      1.76      2.73      1.163
 Exhaust  HC:       1.09      1.06      1.69      1.14       2.62      0.43      0.50      1.76      2.73      1.157
 Evaporat HC:       0.01      0.00      0.00      0.00       0.01                                    0.00      0.006
 Refuel L HC:       0.00      0.00      0.00      0.00       0.00                                              0.000
 Runing L HC:       0.00      0.00      0.00      0.00       0.00                                              0.000
 Rsting L HC:       0.00      0.00      0.00      0.00       0.00                                    0.00      0.000
 Exhaust  CO:      13.48     14.19     19.81     14.94      36.45      1.14      0.00      8.90     23.67     13.861
 Exhaust NOX:       1.28      1.12      1.85      1.22       5.31      1.08      0.00      9.98      1.17      1.584
0Evaporative Emissions by Component                  Weathered RVP:  8.1          Hot Soak Temp: 25.0 (F)
 (Hot Soak: g/trip, Diurnals: g, Crankcase: g/mi, Refuel: g/gal, Resting: g/hr)  Running Loss Temp: 25.0 (F)
                                                                                 Resting Loss Temp: 25.0 (F)
 Hot Soak           0.00      0.00      0.00      0.00       0.00                                    0.00
 WtDiurnal          0.00      0.00      0.00      0.00       0.00                                    0.00
 Multiple           0.00      0.00      0.00      0.00       0.00
 Crankcase          0.01      0.00      0.00      0.00       0.01                                    0.00
```

Refuel	0.00	0.00	0.00	0.00	0.00		
Resting	0.00	0.00	0.00	0.00	0.00		0.00

JANUARY
20 MPH

```
1                       PROMPT
MOBILE5B ST ALBAN TOWER
1                       TAMFLG
4                       SPDFLG
3                       VMFLAG
3                       MYMRFG
1                       NEWFLAG
3                       IMFLAG
1                       ALHFLG
8                       ATPFLG
5                       RLFLAG
1                       LOCFLG
1                       TEMFLG
3                       OUTFMT
4                       PRTFLG
1                       IDLFLG
2                       NMGFLG
3                       HCFLAG
.820.091.014.016.014.000.029.016                                        VMT
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                      LDGV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                      LDGT1
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .041 .087 .106 .105 .093 .101 .071 .063 .056 .046                      LDGT2
 .038 .031 .033 .028 .022 .016 .010 .010 .009 .008
 .005 .005 .004 .003 .009
 .023 .047 .047 .047 .047 .038 .033 .021 .026 .029                      HDGV
 .034 .064 .054 .058 .051 .038 .043 .041 .035 .029
 .021 .022 .022 .014 .116
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                      LDDV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                      LDDT
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .034 .067 .067 .066 .066 .073 .061 .040 .041 .051                      HDDV
 .053 .066 .055 .057 .045 .019 .023 .028 .024 .016
 .011 .009 .007 .005 .016
 .029 .052 .068 .084 .080 .093 .075 .074 .074 .086                      MC
 .060 .225 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .000 .000
83 40 68 20 03 03 096 1 2 2211 2211 220. 1.20 999.                      IM-BASIC
83 40 81 20 03 03 096 1 2 2221 4211 0.80 20.0 2.00                      IM240 PROG
83 75 20 2221 12 096. 22211111                                  ATP-ATP PROGRAMS
83 75 20 2221 12 096.                                           ATP-PRESSURE CK
83 81 20 2221 12 096.                                           ATP-PURGE TEST
 16.6 33.9 23.4 13.3 06.1 06.7                                  TRIP LENGTH DIST
1 01 20.0 25.0 20.6 27.3 20.6  1                              SCENERIO DESCRIPTION
STALBANTOWER_JAN B  20.  30.  7.8  7.8 20 1 1 2                   LAP RECORD
```

```
1MOBILE5B ST ALBAN TOWER
 MOBILE5b (14-Sep-96)
0
-M 49 Warning:
+                0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+                0.999     MYR sum not = 1. (will normalize)
-M 49 Warning:
+                0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+                0.999     MYR sum not = 1. (will normalize)
-M170 Warning:
+               Exhaust emissions for gasoline fueled vehicles
                beginning in 1995 have been reduced as a result of
                Gasoline Detergent Additive Regulations (1994).
-M 83 Comment:
+               One or more evaporative temperatures (input daily
                maximum, input ambient, calculated hot soak, and/or
                calculated running loss) is 40F or less, or input
                daily minimum is 25F or less; no evaporative emission
                factors (hot soak, diurnal, running loss, or resting
                loss) will be calculated.
-M112 Warning:
+               Wintertime Reformulated Gasoline Rules Apply
               See Section 2.2.16 of the User Guide
0I/M program #1 selected:                    I/M program #2 selected:

0Start year (Jan 1):  1983                   Start year (Jan 1):  1983
 Pre-1981 stringency: 40%                    Pre-1981 stringency: 40%
 First MYR covered:   1968                   First MYR covered:   1981
 Last MYR covered:    2020                   Last MYR covered:    2020
 Waiver (pre-1981):    3.%                   Waiver (pre-1981):    3.%
 Waiver (1981+):       3.%                   Waiver (1981+):       3.%
 Compliance Rate:     96.%                   Compliance Rate:     96.%
 Inspection type:                            Inspection type:
 Test Only                                   Test Only
 Inspection frequency: Biennial              Inspection frequency: Biennial
 I/M program #1 vehicle types                I/M program #2 vehicle types
      LDGV - Yes                                  LDGV - Yes
     LDGT1 - Yes                                 LDGT1 - Yes
     LDGT2 - No                                  LDGT2 - Yes
      HDGV - No                                   HDGV - No
 1981 & later MYR test type:                 1981 & later MYR test type:
      2500 rpm / Idle                             IM240 test
 Cutpoints, HC:   220.000                    Cutpoints, HC:     0.800
```

```
 Cutpoints, CO:     1.200                          Cutpoints, CO:    20.000
 Cutpoints, NOx:  999.000                          Cutpoints, NOx:    2.000

  Low alt, Annl and Bien Insp Freq TECH 1 & 2 I/M cred data
 Bien Insp Freq & TECH 4+ I/M credit 2500/Idle test data
 Bien Insp Freq & TECH 4+ I/M credit IM240 test data
0Functional Check Program Description:
0Check Start Model Yrs Vehicle Classes Covered    Inspection         Comp   Eff
      (Jan1) Covered   LDGV LDGT1 LDGT2 HDGV   Type         Freq     Rate   Adj
 Press 1983  1975-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
 Purge 1983  1981-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
 ATP   1983  1975-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
0Air pump system disablements:       Yes  Catalyst removals:                 Yes
 Fuel inlet restrictor disablements: Yes  Tailpipe lead deposit test:         No
 EGR disablement:                    No   Evaporative system disablements:   No
 PCV system disablements:            No   Missing gas caps:                  No
0Non-methane HC emission factors include all evaporative HC emission factors, except for refueling emissions.
0
0Emission factors are as of Jan. 1st of the indicated calendar year.
0User supplied veh registration distributions.
0Cal. Year: 2001        I/M Program: Yes       Ambient Temp: 28.0 / 28.0 / 28.0 (F) Region: Low
                  Anti-tam. Program: Yes     Operating Mode: 20.6 / 27.3 / 20.6   Altitude:  500. Ft.
                   Reformulated Gas: Yes          ASTM Class: B
0STALBANTOWER_JAN                             Minimum Temp:  20. (F)         Maximum Temp:  30. (F)
                        Period 1 RVP:  7.8    Period 2 RVP:  7.8        Period 2 Start Yr: 2020
0  Veh. Type:      LDGV      LDGT1     LDGT2      LDGT      HDGV      LDDV      LDDT      HDDV      MC       All Veh
+
 Veh. Speeds:     20.0      20.0      20.0                  20.0      20.0      20.0      20.0      20.0
     VMT Mix:     0.820     0.091     0.014                 0.016     0.014     0.000     0.029     0.016
0Composite Emission Factors (Gm/Mile)
 Non-Meth HC:     1.35      1.28      2.03      1.38        3.55      0.52      0.60      2.10      3.19      1.427
 Exhaust  HC:     1.34      1.28      2.03      1.38        3.54      0.52      0.60      2.10      3.19      1.422
 Evaporat HC:     0.01      0.00      0.00      0.00        0.01                                    0.00      0.006
 Refuel L HC:     0.00      0.00      0.00      0.00        0.00                                              0.000
 Runing L HC:     0.00      0.00      0.00      0.00        0.00                                              0.000
 Rsting L HC:     0.00      0.00      0.00      0.00        0.00                                    0.00      0.000
 Exhaust  CO:    17.47     18.10     25.02     19.03       46.46      1.44      0.00     11.26     29.69     17.891
 Exhaust NOX:     1.25      1.11      1.83      1.20        5.09      1.17      0.00     10.81      1.06      1.578
0Evaporative Emissions by Component              Weathered RVP:  8.1          Hot Soak Temp: 25.0 (F)
 (Hot Soak: g/trip, Diurnals: g, Crankcase: g/mi, Refuel: g/gal, Resting: g/hr)  Running Loss Temp: 25.0 (F)
                                                                               Resting Loss Temp: 25.0 (F)
 Hot Soak         0.00      0.00      0.00      0.00        0.00                                    0.00
 WtDiurnal        0.00      0.00      0.00      0.00        0.00                                    0.00
 Multiple         0.00      0.00      0.00      0.00        0.00
 Crankcase        0.01      0.00      0.00      0.00        0.01                                    0.00
```

Refuel	0.00	0.00	0.00	0.00	0.00		
Resting	0.00	0.00	0.00	0.00	0.00		0.00

JANUARY
15MPH

```
1                       PROMPT
MOBILE5B ST ALBAN TOWER
1                       TAMFLG
4                       SPDFLG
3                       VMFLAG
3                       MYMRFG
1                       NEWFLAG
3                       IMFLAG
1                       ALHFLG
8                       ATPFLG
5                       RLFLAG
1                       LOCFLG
1                       TEMFLG
3                       OUTFMT
4                       PRTFLG
1                       IDLFLG
2                       NMGFLG
3                       HCFLAG
.820.091.014.016.014.000.029.016                                        VMT
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                      LDGV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                      LDGT1
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .041 .087 .106 .105 .093 .101 .071 .063 .056 .046                      LDGT2
 .038 .031 .033 .028 .022 .016 .010 .010 .009 .008
 .005 .005 .004 .003 .009
 .023 .047 .047 .047 .047 .038 .033 .021 .026 .029                      HDGV
 .034 .064 .054 .058 .051 .038 .043 .041 .035 .029
 .021 .022 .022 .014 .116
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                      LDDV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                      LDDT
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .034 .067 .067 .066 .066 .073 .061 .040 .041 .051                      HDDV
 .053 .066 .055 .057 .045 .019 .023 .028 .024 .016
 .011 .009 .007 .005 .016
 .029 .052 .068 .084 .080 .093 .075 .074 .074 .086                      MC
 .060 .225 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .000 .000
83 40 68 20 03 03 096 1 2 2211 2211 220. 1.20 999.                      IM-BASIC
83 40 81 20 03 03 096 1 2 2221 4211 0.80 20.0 2.00                      IM240 PROG
83 75 20 2221 12 096. 22211111                                      ATP-ATP PROGRAMS
83 75 20 2221 12 096.                                               ATP-PRESSURE CK
83 81 20 2221 12 096.                                               ATP-PURGE TEST
 16.6 33.9 23.4 13.3 06.1 06.7                                      TRIP LENGTH DIST
1 01 15.0 25.0 20.6 27.3 20.6  1                                SCENERIO DESCRIPTION
STALBANTOWER_JAN B  20.  30.  7.8  7.8 20 1 1 2                        LAP RECORD
```

```
1MOBILE5B ST ALBAN TOWER
 MOBILE5b (14-Sep-96)
0
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M170 Warning:
+               Exhaust emissions for gasoline fueled vehicles
                beginning in 1995 have been reduced as a result of
                Gasoline Detergent Additive Regulations (1994).
-M 83 Comment:
+               One or more evaporative temperatures (input daily
                maximum, input ambient, calculated hot soak, and/or
                calculated running loss) is 40F or less, or input
                daily minimum is 25F or less; no evaporative emission
                factors (hot soak, diurnal, running loss, or resting
                loss) will be calculated.
-M11. Warning:
+               Wintertime Reformulated Gasoline Rules Apply
               See Section 2.2.16 of the User Guide
0I/M program #1 selected:                    I/M program #2 selected:

0Start year (Jan 1):  1983                   Start year (Jan 1):  1983
 Pre-1981 stringency: 40%                    Pre-1981 stringency: 40%
 First MYR covered:   1968                   First MYR covered:   1981
 Last MYR covered:    2020                   Last MYR covered:    2020
 Waiver (pre-1981):    3.8                   Waiver (pre-1981):    3.8
 Waiver (1981+):       3.8                   Waiver (1981+):       3.8
 Compliance Rate:     96.8                   Compliance Rate:     96.8
 Inspection type:                            Inspection type:
 Test Only                                   Test Only
 Inspection frequency: Biennial              Inspection frequency: Biennial
 I/M program #1 vehicle types                I/M program #2 vehicle types
      LDGV - Yes                                  LDGV - Yes
     LDGT1 - Yes                                 LDGT1 - Yes
     LDGT2 - No                                  LDGT2 - Yes
      HDGV - No                                   HDGV - No
 1981 & later MYR test type:                 1981 & later MYR test type:
      2 Speed / Idle                              IM240 test
 Cutpoints, HC:    220.000                   Cutpoints, HC:      0.800
```

```
 Cutpoints, CO:     1.200                          Cutpoints, CO:    20.000
 Cutpoints, NOx:  999.000                          Cutpoints, NOx:    2.000

  Low alt, Annl and Bien Insp Freq TECH 1 & 2 I/M cred data
 Bien Insp Freq & TECH 4+ I/M credit 2500/Idle test data
 Bien Insp Freq & TECH 4+ I/M credit IM240 test data
0Functional Check Program Description:
0Check Start Model Yrs Vehicle Classes Covered    Inspection        Comp   Eff
      (Janl) Covered   LDGV LDGT1 LDGT2 HDGV   Type        Freq     Rate   Adj
 Press 1983  1975-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
 Purge 1983  1981-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
 ATP   1983  1975-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
0Air pump system disablements:       Yes  Catalyst removals:                  Yes
 Fuel inlet restrictor disablements: Yes  Tailpipe lead deposit test:         No
 EGR disablement:                    No   Evaporative system disablements:    No
 PCV system disablements:            No   Missing gas caps:                   No
0Non-methane HC emission factors include all evaporative HC emission factors, except for refueling emissions.
0_____________________________________________________________________________
0Emission factors are as of Jan. 1st of the indicated calendar year.
0User supplied veh registration distributions.
0Cal. Year: 2001        I/M Program: Yes       Ambient Temp: 28.0 / 28.0 / 28.0 (F) Region: Low
                Anti-tam. Program: Yes     Operating Mode: 20.6 / 27.3 / 20.6   Altitude:  500. Ft.
                 Reformulated Gas: Yes          ASTM Class: B
0STALBANTOWER_JAN                           Minimum Temp:  20. (F)         Maximum Temp:  30. (F)
                    Period 1 RVP:  7.8      Period 2 RVP:  7.8        Period 2 Start Yr: 2020
0  Veh. Type:       LDGV      LDGT1      LDGT2      LDGT      HDGV      LDDV      LDDT      HDDV      MC      All Veh
+
 Veh. Speeds:       15.0       15.0       15.0                 15.0      15.0      15.0      15.0      15.0
     VMT Mix:      0.820      0.091      0.014                0.016     0.014     0.000     0.029     0.016
0Composite Emission Factors (Gm/Mile)
 Non-Meth HC:       1.61       1.53       2.45       1.65      4.98      0.63      0.73      2.56      3.92     1.720
 Exhaust  HC:       1.60       1.53       2.45       1.65      4.97      0.63      0.73      2.56      3.92     1.715
 Evaporat HC:       0.01       0.00       0.00       0.00      0.01                                    0.00     0.006
 Refuel L HC:       0.00       0.00       0.00       0.00      0.00                                             0.000
 Runing L HC:       0.00       0.00       0.00       0.00      0.00                                             0.000
 Rsting L HC:       0.00       0.00       0.00       0.00      0.00                                    0.00     0.000
 Exhaust  CO:      20.78      21.19      29.65      22.32     62.55      1.91      0.00     14.90     39.50    21.474
 Exhaust NOX:       1.27       1.14       1.88       1.24      4.86      1.32      0.00     12.14      0.97     1.637
0Evaporative Emissions by Component          Weathered RVP:  8.1          Hot Soak Temp:  25.0 (F)
 (Hot Soak: g/trip, Diurnals: g, Crankcase: g/mi, Refuel: g/gal, Resting: g/hr)  Running Loss Temp:  25.0 (F)
                                                                              Resting Loss Temp:  25.0 (F)
 Hot Soak           0.00       0.00       0.00       0.00      0.00                                    0.00
 Diurnals           0.00       0.00       0.00       0.00      0.00                                    0.00
 Multiday           0.00       0.00       0.00       0.00      0.00
 Crankcase          0.01       0.00       0.00       0.00      0.01                                    0.00
```

Refuel	0.00	0.00	0.00	0.00	0.00		
Resting	0.00	0.00	0.00	0.00	0.00		0.00

JANUARY
10 MPH

```
1                       PROMPT
MOBILE5B ST ALBAN TOWER
1                       TAMFLG
4                       SPDFLG
3                       VMFLAG
3                       MYMRFG
1                       NEWFLAG
3                       IMFLAG
1                       ALHFLG
8                       ATPFLG
5                       RLFLAG
1                       LOCFLG
1                       TEMFLG
3                       OUTFMT
4                       PRTFLG
1                       IDLFLG
2                       NMGFLG
3                       HCFLAG
.820.091.014.016.014.000.029.016                                    VMT
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                  LDGV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                  LDGT1
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .041 .087 .106 .105 .093 .101 .071 .063 .056 .046                  LDGT2
 .038 .031 .033 .028 .022 .016 .010 .010 .009 .008
 .005 .005 .004 .003 .009
 .023 .047 .047 .047 .047 .038 .033 .021 .026 .029                  HDGV
 .034 .064 .054 .058 .051 .038 .043 .041 .035 .029
 .021 .022 .022 .014 .116
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                  LDDV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                  LDDT
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .034 .067 .067 .066 .066 .073 .061 .040 .041 .051                  HDDV
 .053 .066 .055 .057 .045 .019 .023 .028 .024 .016
 .011 .009 .007 .005 .016
 .029 .052 .068 .084 .080 .093 .075 .074 .074 .086                  MC
 .060 .225 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .000 .000
83 40 68 20 03 03 096 1 2 2211 2211 ..    1.20 999.                 IM-BASIC
83 40 81 20 03 03 096 1 2 2221 4211   -   0.0 2.00                 IM240 PROG
83 75 20 2221 12 096. 22211111                                  ATP-ATP PROGRAMS
83 75 20 2221 12 096.                                           ATP-PRESSURE CK
83 81 20 2221 12 096.                                           ATP-PURGE TEST
 16.6 33.9 23.4 13.3 06.1 06.7                                  TRIP LENGTH DIST
1 01 10.0 25.0 20.6 27.3 20.6  1                              SCENERIO DESCRIPTION
STALBANTOWER_JAN B  20.  30.  7.8  7.      . 1 2                  LAP RECORD
```

```
1MOBILE5B ST ALBAN TOWER
 MOBILE5b (14-Sep-96)
0
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M170 Warning:
+              Exhaust emissions for gasoline fueled vehicles
               beginning in 1995 have been reduced as a result of
               Gasoline Detergent Additive Regulations (1994).
-M 83 Comment:
+              One or more evaporative temperatures (input daily
               maximum, input ambient, calculated hot soak, and/or
               calculated running loss) is 40F or less, or input
               daily minimum is 25F or less; no evaporative emission
               factors (hot soak, diurnal, running loss, or resting
               loss) will be calculated.
-M112 Warning:
+              Wintertime Reformulated Gasoline Rules Apply
              See Section 2.2.16 of the User Guide
0I/M program #1 selected:

0Start year (Jan 1):  1983
 Pre-1981 stringency: 40%
 First MYR covered:   1968
 Last MYR covered:    2020
 Waiver (pre-1981):    3.8
 Waiver (1981+):       3.8
 Compliance Rate:     96.8
 Inspection type:
 Test Only
 Inspection frequency: Biennial
 I/M program #1 vehicle types
      LDGV - Yes
     LDGT1 - Yes
     LDGT2 - No
      HDGV   No
 [illegible] MYR test type:
 [illegible]
 [illegible] 0.000
```

```
I/M program #2 selected:

Start year (Jan 1):  1983
Pre-1981 stringency: 40%
First MYR covered:   1981
Last MYR covered:    2020
Waiver (pre-1981):    3.8
Waiver (1981+):       3.8
Compliance Rate:     96.8
Inspection type:
Test Only
Inspection frequency: Biennial
I/M program #2 vehicle types
     LDGV - Yes
    LDGT1 - Yes
    LDGT2 - Yes
     HDGV - No
1981 & later MYR test type:
     IM240 test
Cutpoints, HC:      0.800
```

```
 Cutpoints, CO:     1.200                          Cutpoints, CO:    20.000
 Cutpoints, NOx:  999.000                          Cutpoints, NOx:    2.000

  Low alt, Annl and Bien Insp Freq TECH 1 & 2 I/M cred data
 Bien Insp Freq & TECH 4+ I/M credit 2500/Idle test data
 Bien Insp Freq & TECH 4+ I/M credit IM240 test data
0Functional Check Program Description:
0Check Start Model Yrs Vehicle Classes Covered    Inspection         Comp   Eff
      (Janl) Covered   LDGV LDGT1 LDGT2 HDGV   Type         Freq      Rate   Adj
 Press 1983  1975-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
 Purge 1983  1981-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
 ATP   1983  1975-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
0Air pump system disablements:       Yes  Catalyst removals:                  Yes
 Fuel inlet restrictor disablements: Yes  Tailpipe lead deposit test:         No
 EGR disablement:                    No   Evaporative system disablements:    No
 PCV system disablements:            No   Missing gas caps:                   No
0Non-methane HC emission factors include all evaporative HC emission factors, except for refueling emissions.
0_____
0Emission factors are as of Jan. 1st of the indicated calendar year.
0User supplied veh registration distributions.
0Cal. Year: 2001        I/M Program: Yes       Ambient Temp: 28.0 / 28.0 / 28.0 (F) Region: Low
                Anti-tam. Program: Yes     Operating Mode: 20.6 / 27.3 / 20.6   Altitude:  500. Ft.
                 Reformulated Gas: Yes          ASTM Class: B
0STALBANTOWER_JAN                           Minimum Temp:  20. (F)         Maximum Temp:  30. (F)
                     Period 1 RVP:  7.8     Period 2 RVP:  7.8        Period 2 Start Yr: 2020
0  Veh. Type:      LDGV      LDGT1     LDGT2      LDGT      HDGV      LDDV      LDDT      HDDV      MC      All Veh
+
 Veh. Speeds:     10.0      10.0      10.0                 10.0      10.0      10.0      10.0      10.0
     VMT Mix:     0.820     0.091     0.014                0.016     0.014     0.000     0.029     0.016
0Composite Emission Factors (Gm/Mile)
 Non-Meth HC:     2.10      2.01      3.25      2.18       7.29      0.78      0.91      3.19      5.52      2.259
 Exhaust  HC:     2.09      2.01      3.25      2.18       7.27      0.78      0.91      3.19      5.52      2.254
 Evaporat HC:     0.01      0.00      0.00      0.00       0.01                                    0.00      0.006
 Refuel L HC:     0.00      0.00      0.00      0.00       0.00                                              0.000
 Runing L HC:     0.00      0.00      0.00      0.00       0.00                                              0.000
 Rsting L HC:     0.00      0.00      0.00      0.00       0.00                                    0.00      0.000
 Exhaust  CO:    26.84     26.86     38.45     28.41      88.99      2.65      0.00     20.65     60.82     28.024
 Exhaust NOX:     1.33      1.19      1.96      1.29       4.64      1.53      0.00     14.12      0.95      1.750
0Evaporative Emissions by Component              Weathered RVP:  8.1          Hot Soak Temp:  25.0 (F)
 (Hot Soak: g/trip, Diurnals: g, Crankcase: g/mi, Refuel: g/gal, Resting: g/hr)  Running Loss Temp:  25.0 (F)
                                                                               Resting Loss Temp:  25.0 (F)
 Hot Soak         0.00      0.00      0.00      0.00       0.00                                    0.00
 Diurnal          0.00      0.00      0.00      0.00       0.00                                    0.00
 Multiple         0.00      0.00      0.00      0.00       0.00
 Crankcase        0.01      0.00      0.00      0.00       0.01                                    0.00
```

Refuel	0.00	0.00	0.00	0.00	0.00		
Resting	0.00	0.00	0.00	0.00	0.00		0.00

JANUARY
5 MPH

```
1                       PROMPT
MOBILE5B ST ALBAN TOWER
1                       TAMFLG
4                       SPDFLG
3                       VMFLAG
3                       MYMRFG
1                       NEWFLAG
3                       IMFLAG
1                       ALHFLG
8                       ATPFLG
5                       RLFLAG
1                       LOCFLG
1                       TEMFLG
3                       OUTFMT
4                       PRTFLG
1                       IDLFLG
2                       NMGFLG
3                       HCFLAG
.820.091.014.016.014.000.029.016                                    VMT
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                  LDGV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                  LDGT1
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .041 .087 .106 .105 .093 .101 .071 .063 .056 .046                  LDGT2
 .038 .031 .033 .028 .022 .016 .010 .010 .009 .008
 .005 .005 .004 .003 .009
 .023 .047 .047 .047 .047 .038 .033 .021 .026 .029                  HDGV
 .034 .064 .054 .058 .051 .038 .043 .041 .035 .029
 .021 .022 .022 .014 .116
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                  LDDV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                  LDDT
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .034 .067 .067 .066 .066 .073 .061 .040 .041 .051                  HDDV
 .053 .066 .055 .057 .045 .019 .023 .028 .024 .016
 .011 .009 .007 .005 .016
 .029 .052 .068 .084 .080 .093 .075 .074 .074 .086                  MC
 .060 .225 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .000 .000
83 40 68 20 03 03 096 1 2 2211 2211 220. 1.20 999.                  IM-BASIC
83 40 81 20 03 03 096 1 2 2221 4211 0.80 20.0 2.00                  IM240 PROG
83 75 20 2221 12 096. 22211111                                   ATP-ATP PROGRAMS
83 75 20 2221 12 096.                                            ATP-PRESSURE CK
83 81 20 2221 12 096.                                            ATP-PURGE TEST
 16.6 33.9 23.4 13.3 06.1 06.7                                   TRIP LENGTH DIST
1 01  5.0 25.0 20.6 27.3 20.6  1                               SCENERIO DESCRIPTION
STALBANTOWER_JAN B  20.  30.  7.8  7.8 20 1 1 2                    LAP RECORD
```

```
1MOBILE5B ST ALBAN TOWER
 MOBILE5b (14-Sep-96)
0
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M170 Warning:
+              Exhaust emissions for gasoline fueled vehicles
              beginning in 1995 have been reduced as a result of
              Gasoline Detergent Additive Regulations (1994).
-M 83 Comment:
+              One or more evaporative temperatures (input daily
              maximum, input ambient, calculated hot soak, and/or
              calculated running loss) is 40F or less, or input
              daily minimum is 25F or less; no evaporative emission
              [illegible]
              [illegible]
+              [illegible] Reformulated Gasoline Rules Apply
              See Section 2.2.16 of the User Guide
01/M program #1 selected:                    I/M program #2 selected:

0Start year (Jan 1):  1983                   Start year (Jan 1):  1983
 Pre-1981 stringency: 40%                    Pre-1981 stringency: 40%
 First MYR covered:   1968                   First MYR covered:   1981
 Last MYR covered:    2020                   Last MYR covered:    2020
 Waiver (pre-1981):    3.%                   Waiver (pre-1981):    3.%
 Waiver (1981+):       3.%                   Waiver (1981+):       3.%
 Compliance Rate:     96.%                   Compliance Rate:     96.%
 Inspection type:                            Inspection type:
 Test Only                                   Test Only
 Inspection frequency: Biennial              Inspection frequency: Biennial
 I/M program #1 vehicle types                I/M program #2 vehicle types
      LDGV - Yes                                  LDGV - Yes
     LDGT1 - Yes                                 LDGT1 - Yes
     LDGT2 - No                                  LDGT2 - Yes
      HDGV - No                                   HDGV - No
  [illegible] test type:                     1981 & later MYR test type:
      [illegible] / Idle                          IM240 test
  Cutpoints, HC:   [illegible]               Cutpoints, HC:      0.800
```

Cutpoints, CO: 1.200 Cutpoints, CO: 20.000
Cutpoints, NOx: 999.000 Cutpoints, NOx: 2.000

Low alt, Annl and Bien Insp Freq TECH 1 & 2 I/M cred data
Bien Insp Freq & TECH 4+ I/M credit 2500/Idle test data
Bien Insp Freq & TECH 4+ I/M credit IM240 test data

0Functional Check Program Description:

0Check	Start Model Yrs	Vehicle Classes Covered				Inspection		Comp	Eff
	(Jan1) Covered	LDGV	LDGT1	LDGT2	HDGV	Type	Freq	Rate	Adj
Press	1983 1975-2020	Yes	Yes	Yes	No	Test Only	Biennial	96.0%	1.00
Purge	1983 1981-2020	Yes	Yes	Yes	No	Test Only	Biennial	96.0%	1.00
ATP	1983 1975-2020	Yes	Yes	Yes	No	Test Only	Biennial	96.0%	1.00

0Air pump system disablements: Yes Catalyst removals: Yes
Fuel inlet restrictor disablements: Yes Tailpipe lead deposit test: No
EGR disablement: No Evaporative system disablements: No
PCV system disablements: No Missing gas caps: No

0Non-methane HC emission factors include all evaporative HC emission factors, except for refueling emissions.

0

0Emission factors are as of Jan. 1st of the indicated calendar year.
0User supplied veh registration distributions.
0Cal. Year: 2001 I/M Program: Yes Ambient Temp: 28.0 / 28.0 / 28.0 (F) Region: Low
Anti-tam. Program: Yes Operating Mode: 20.6 / 27.3 / 20.6 Altitude: 500. Ft.
Reformulated Gas: Yes ASTM Class: B
0STALBANTOWER_JAN Minimum Temp: 20. (F) Maximum Temp: 30. (F)
Period 1 RVP: 7.8 Period 2 RVP: 7.8 Period 2 Start Yr: 2020

0 Veh. Type:	LDGV	LDGT1	LDGT2	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
Veh. Speeds:	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
VMT Mix:	0.820	0.091	0.014		0.016	0.014	0.000	0.029	0.016	
0Composite Emission Factors (Gm/Mile)										
Non-Meth HC:	3.57	3.45	5.68	3.75	11.11	1.00	1.16	4.06	10.21	3.792
Exhaust HC:	3.56	3.45	5.68	3.75	11.10	1.00	1.16	4.06	10.21	3.787
Evaporat HC:	0.01	0.00	0.00	0.00	0.01				0.00	0.006
Refuel L HC:	0.00	0.00	0.00	0.00	0.00					0.000
Runing L HC:	0.00	0.00	0.00	0.00	0.00					0.000
Rsting L HC:	0.00	0.00	0.00	0.00	0.00				0.00	0.000
Exhaust CO:	45.02	43.91	65.03	46.73	133.75	3.84	0.00	29.95	126.59	46.909
Exhaust NOX:	1.51	1.35	2.22	1.47	4.42	1.85	0.00	17.02	1.05	2.003

0Evaporative Emissions by Component Weathered RVP: 8.1 Hot Soak Temp: 25.0 (F)
(Hot Soak: g/trip, Diurnals: g, Crankcase: g/mi, Refuel: g/gal, Resting: g/hr) Running Loss Temp: 25.0 (F)
Resting Loss Temp: 25.0 (F)

Hot Soak	0.00	0.00	0.00	0.00	0.00			0.00	
[illegible]	[illegible]	0.00	0.00	0.00	0.00			0.00	
[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00				
Crankcase	[illegible]	[illegible]	[illegible]	0.00	0.01			0.00	

Refuel	0.00	0.00	0.00	0.00	0.00		
Resting	0.00	0.00	0.00	0.00	0.00		0.00

JANUARY
2.5 MPH (IDLE)

```
1                       PROMPT
MOBILE5B ST ALBAN TOWER
1                       TAMFLG
4                       SPDFLG
3                       VMFLAG
3                       MYMRFG
1                       NEWFLAG
3                       IMFLAG
1                       ALHFLG
8                       ATPFLG
5                       RLFLAG
1                       LOCFLG
1                       TEMFLG
3                       OUTFMT
4                       PRTFLG
1                       IDLFLG
2                       NMGFLG
3                       HCFLAG
.820.091.014.016.014.000.029.016                                        VMT
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                      LDGV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                      LDGT1
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .041 .087 .106 .105 .093 .101 .071 .063 .056 .046                      LDGT2
 .038 .031 .033 .028 .022 .016 .010 .010 .009 .008
 .005 .005 .004 .003 .009
 .023 .047 .047 .047 .047 .038 .033 .021 .026 .029                      HDGV
 .034 .064 .054 .058 .051 .038 .043 .041 .035 .029
 .021 .022 .022 .014 .116
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                      LDDV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                      LDDT
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .034 .067 .067 .066 .066 .073 .061 .040 .041 .051                      HDDV
 .053 .066 .055 .057 .045 .019 .023 .028 .024 .016
 .011 .009 .007 .005 .016
 .029 .052 .068 .084 .080 .093 .075 .074 .074 .086                      MC
 .060 .225 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .000 .000
83 40 68 20 03 03 096 1 2 2211 2211 220. 1.20 999.                      IM-BASIC
83 40 81 20 03 03 096 1 2 2221 4211 0.80 20.0 2.00                      IM240 PROG
83 75 20 2221 12 096. 22211111                                      ATP-ATP PROGRAMS
83 75 20 2221 12 096.                                               ATP-PRESSURE CK
83 81 20 2221 12 096.                                               ATP-PURGE TEST
 16.6 33.9 23.4 13.3 06.1 06.7                                      TRIP LENGTH DIST
1 01  2.5 25.0 20.6 27.3 20.6  1                                  SCENERIO DESCRIPTION
STALBANTOWER_JAN B  20.  30.  7.8  7.8 20 1 1 2                        LAP RECORD
```

```
1MOBILE5B ST ALBAN TOWER
 MOBILE5b (14-Sep-96)
0
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M170 Warning:
+               Exhaust emissions for gasoline fueled vehicles
                beginning in 1995 have been reduced as a result of
                Gasoline Detergent Additive Regulations (1994).
-M 83 Comment:
+               One or more evaporative temperatures (input daily
                maximum, input ambient, calculated hot soak, and/or
                calculated running loss) is 40F or less, or input
                daily minimum is 25F or less; no evaporative emission
                factors (hot soak, diurnal, running loss, or resting
                loss) will be calculated.
-M... Warning:
+               Wintertime Reformulated Gasoline Rules Apply
                See Section 2.2.16 of the User Guide
0I/M program #1 selected:                    I/M program #2 selected:

0Start year (Jan 1):  1983                   Start year (Jan 1):  1983
 Pre-1981 stringency: 40%                    Pre-1981 stringency: 40%
 First MYR covered:   1968                   First MYR covered:   1981
 Last MYR covered:    2020                   Last MYR covered:    2020
 Waiver (pre-1981):    3.8                   Waiver (pre-1981):    3.8
 Waiver (1981+):       3.8                   Waiver (1981+):       3.8
 Compliance Rate:     96.8                   Compliance Rate:     96.8
 Inspection type:                            Inspection type:
 Test Only                                   Test Only
 Inspection frequency: Biennial              Inspection frequency: Biennial
 I/M program #1 vehicle types                I/M program #2 vehicle types
      LDGV - Yes                                  LDGV - Yes
     LDGT1 - Yes                                 LDGT1 - Yes
     LDGT2 - No                                  LDGT2 - Yes
      HDGV - No                                   HDGV - No
 1981 & later MYR test type:                 1981 & later MYR test type:
      IM240 type / Idle                           IM240 test
 Cutpoints, HC:      0.800                   Cutpoints, HC:      0.800
```

Cutpoints, CO: 1.200 Cutpoints, CO: 20.000
Cutpoints, NOx: 999.000 Cutpoints, NOx: 2.000

Low alt, Annl and Bien Insp Freq TECH 1 & 2 I/M cred data
Bien Insp Freq & TECH 4+ I/M credit 2500/Idle test data
Bien Insp Freq & TECH 4+ I/M credit IM240 test data

0Functional Check Program Description:

0Check	Start Model Yrs	Vehicle Classes Covered				Inspection		Comp	Eff
	(Jan1) Covered	LDGV	LDGT1	LDGT2	HDGV	Type	Freq	Rate	Adj
Press	1983 1975-2020	Yes	Yes	Yes	No	Test Only	Biennial	96.0%	1.00
Purge	1983 1981-2020	Yes	Yes	Yes	No	Test Only	Biennial	96.0%	1.00
ATP	1983 1975-2020	Yes	Yes	Yes	No	Test Only	Biennial	96.0%	1.00

0Air pump system disablements: Yes Catalyst removals: Yes
Fuel inlet restrictor disablements: Yes Tailpipe lead deposit test: No
EGR disablement: No Evaporative system disablements: No
PCV system disablements: No Missing gas caps: No

0Non-methane HC emission factors include all evaporative HC emission factors, except for refueling emissions.

0

0Emission factors are as of Jan. 1st of the indicated calendar year.

0User supplied veh registration distributions.

[illegible] I/M in this area: Yes Ambient Temp: 28.0 / 28.0 / 28.0 (F) Region: Low
[illegible] Fuels in this area: Yes Operating Mode: 20.6 / 27.3 / 20.6 Altitude: 500. Ft.
[illegible] Fuels in this area: Yes ASTM Class: B
0STALBANTOWER_JAN Minimum Temp: 20. (F) Maximum Temp: 30. (F)
Period 1 RVP: 7.8 Period 2 RVP: 7.8 Period 2 Start Yr: 2020

0 Veh. Type:	LDGV	LDGT1	LDGT2	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
Veh. Speeds:	2.5	2.5	2.5		2.5	2.5	2.5	2.5	2.5	
VMT Mix:	0.820	0.091	0.014		0.016	0.014	0.000	0.029	0.016	
0Composite Emission Factors (Gm/Mile)										
Non-Meth HC:	6.50	6.32	10.44	6.87	13.94	1.14	1.32	4.63	16.38	6.689
Exhaust HC:	6.50	6.32	10.44	6.87	13.93	1.14	1.32	4.63	16.38	6.684
Evaporat HC:	0.01	0.00	0.00	0.00	0.01				0.00	0.006
Refuel L HC:	0.00	0.00	0.00	0.00	0.00					0.000
Runing L HC:	0.00	0.00	0.00	0.00	0.00					0.000
Rsting L HC:	0.00	0.00	0.00	0.00	0.00				0.00	0.000
Exhaust CO:	81.38	77.95	117.09	83.17	167.40	4.70	0.00	36.69	219.75	82.785
Exhaust NOX:	1.87	1.67	2.74	1.81	4.31	2.05	0.00	18.94	1.17	2.388

0Evaporative Emissions by Component Weathered RVP: 8.1 Hot Soak Temp: 25.0 (F)
(Hot Soak: g/trip, Diurnals: g, Crankcase: g/mi, Refuel: g/gal, Resting: g/hr) Running Loss Temp: 25.0 (F)
Resting Loss Temp: 25.0 (F)

Hot Soak	0.00	0.00	0.00	0.00	0.00	0.00	
Diurnal	0.00	0.00	0.00	0.00	0.00	0.00	
Multiple	0.00	0.00	0.00	0.00	0.00		
Crankcase	0.01	0.00	0.00	0.00	0.01	0.00	

Refuel	0.00	0.00	0.00	0.00	0.00		
Resting	0.00	0.00	0.00	0.00	0.00		0.00

JULY
25 MPH

```
1                       PROMPT
MOBILE5B ST ALBAN TOWER
1                       TAMFLG
4                       SPDFLG
3                       VMFLAG
3                       MYMRFG
1                       NEWFLAG
3                       IMFLAG
1                       ALHFLG
8                       ATPFLG
5                       RLFLAG
1                       LOCFLG
1                       TEMFLG
3                       OUTFMT
4                       PRTFLG
1                       IDLFLG
2                       NMGFLG
3                       HCFLAG
.820.091.014.016.014.000.029.016                                    VMT
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                  LDGV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                  LDGT1
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .041 .087 .106 .105 .093 .101 .071 .063 .056 .046                  LDGT2
 .038 .031 .033 .028 .022 .016 .010 .010 .009 .008
 .005 .005 .004 .003 .009
 .023 .047 .047 .047 .047 .038 .033 .021 .026 .029                  HDGV
 .034 .064 .054 .058 .051 .038 .043 .041 .035 .029
 .021 .022 .022 .014 .116
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                  LDDV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                  LDDT
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .034 .067 .067 .066 .066 .073 .061 .040 .041 .051                  HDDV
 .053 .066 .055 .057 .045 .019 .023 .028 .024 .016
 .011 .009 .007 .005 .016
 .029 .052 .068 .084 .080 .093 .075 .074 .074 .086                  MC
 .060 .225 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .000 .000
83 40 68 20 03 03 096 1 2 2211 2211 ____ 1.20 999.                  IM-BASIC
83 40 81 20 03 03 096 1 2 2221 4211 ____ 20.0 2.00                  IM240 PROG
83 75 20 2221 12 096. 2221111                                    ATP-ATP PROGRAMS
83 75 20 2221 12 096.                                            ATP-PRESSURE CK
83 81 20 2221 12 096.                                            ATP-PURGE TEST
 16.6 33.9 23.4 13.3 06.1 06.7                                   TRIP LENGTH DIST
1 01 25.0 85.7 20.6 27.3 20.6  1                                SCENERIO DESCRIPTION
STALBANTOWER_JUL B 72.  93.  7.8  7.8 .   .  1 2                   LAP RECORD
```

```
1MOBILE5B ST ALBAN TOWER
 MOBILE5b (14-Sep-96)
0
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M170 Warning:
+              Exhaust emissions for gasoline fueled vehicles
              beginning in 1995 have been reduced as a result of
              Gasoline Detergent Additive Regulations (1994).
0I/M program #1 selected:                    I/M program #2 selected:

0Start year (Jan 1):  1983                   Start year (Jan 1):  1983
 Pre-1981 stringency: 40%                    Pre-1981 stringency: 40%
 First MYR covered:   1968                   First MYR covered:   1981
 Last MYR covered:    2020                   Last MYR covered:    2020
 Waiver (pre-1981):    3.8                   Waiver (pre-1981):    3.8
 Waiver (1981+):       3.8                   Waiver (1981+):       3.8
 Compliance Rate:     96.8                   Compliance Rate:     96.8
 Inspection type:                            Inspection type:
 Test Only                                   Test Only
 Inspection frequency: Biennial              Inspection frequency: Biennial
 I/M program #1 vehicle types                I/M program #2 vehicle types
      LDGV - Yes                                  LDGV - Yes
     LDGT1 - Yes                                 LDGT1 - Yes
     LDGT2 - No                                  LDGT2 - Yes
      HDGV - No                                   HDGV - No
 1981 & later MYR test type:                 1981 & later MYR test type:
      2500 rpm / Idle                             IM240 test
 Cutpoints, HC:   220.000                    Cutpoints, HC:     0.800
 Cutpoints, CO:     1.200                    Cutpoints, CO:    20.000
 Cutpoints, NOx:  999.000                    Cutpoints, NOx:    2.000

  Low alt, Annl and Bien Insp Freq TECH 1 & 2 I/M cred data
 Bien Insp Freq & TECH 4+ I/M credit 2500/Idle test data
 Bien Insp Freq & TECH 4+ I/M credit IM240 test data
0Functional Check Program Description:
0Check Start Model Yrs Vehicle Classes Covered    Inspection        Comp   Eff
      (Jan1) Covered   LDGV LDGT1 LDGT2 HDGV   Type        Freq     Rate   Adj
 Press 1983  1975-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
```

```
 Purge 1983  1981-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
 ATP   1983  1975-2020 Yes  Yes   Yes   No  Test Only     Biennial  96.0%  1.00
0Air pump system disablements:       Yes  Catalyst removals:                  Yes
 Fuel inlet restrictor disablements: Yes  Tailpipe lead deposit test:         No
 EGR disablement:                    No   Evaporative system disablements:   No
 PCV system disablements:            No   Missing gas caps:                  No
0Non-methane HC emission factors include all evaporative HC emission factors, except for refueling emissions.
0
```

```
0Emission factors are as of Jan. 1st of the indicated calendar year.
0User supplied veh registration distributions.
0Cal. Year: 2001        I/M Program: Yes       Ambient Temp: 88.3 / 88.3 / 88.3 (F) Region: Low
                Anti-tam. Program: Yes       Operating Mode: 20.6 / 27.3 / 20.6   Altitude:  500. Ft.
                 Reformulated Gas: No
0STALBANTOWER_JUL                            Minimum Temp:  72. (F)         Maximum Temp:  93. (F)
                       Period 1 RVP:  7.8     Period 2 RVP:  7.8        Period 2 Start Yr: 2000
```

0 Veh. Type:	LDGV	LDGT1	LDGT2	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
Veh. Speeds:	25.0	25.0	25.0		25.0	25.0	25.0	25.0	25.0	
VMT Mix:	0.820	0.091	0.014		0.016	0.014	0.000	0.029	0.016	
0Composite Emission Factors (Gm/Mile)										
Non-Meth HC:	0.90	0.73	1.19	0.79	4.28	0.43	0.50	1.76	5.94	1.043
Exhaust HC:	0.61	0.53	0.91	0.58	2.05	0.43	0.50	1.76	1.94	0.685
Evaporat HC:	0.11	0.08	0.12	0.09	1.68				3.47	0.182
Refuel L HC:	0.00	0.00	0.00	0.00	0.00					0.000
Runing L HC:	0.13	0.08	0.12	0.09	0.46					0.120
Rsting L HC:	0.05	0.04	0.05	0.04	0.10				0.53	0.056
Exhaust CO:	7.99	7.33	11.52	7.89	42.80	1.14	0.00	8.90	20.96	8.674
Exhaust NOX:	0.95	0.82	1.36	0.89	4.92	1.08	0.00	9.98	0.84	1.272
0Evaporative Emissions by Component					Weathered RVP: 7.4				Hot Soak Temp:	89.4 (F)
(Hot Soak: g/trip, Diurnals: g, Crankcase: g/mi, Refuel: g/gal, Resting: g/hr)									Running Loss Temp:	90.1 (F)
									Resting Loss Temp:	83.1 (F)
Hot Soak	0.58	0.45	0.64	0.50	6.23				12.85	
WtDiurnal	0.83	0.79	1.50	1.00	20.89				10.93	
Multiple	4.59	4.36	5.65	4.73	29.33					
Crankcase	0.01	0.00	0.00	0.00	0.01				0.00	
Refuel	0.00	0.00	0.00	0.00	0.00					
Resting	0.06	0.05	0.06	0.05	0.10				0.18	

```
1MOBILE5B ST ALBAN TOWER
 MOBILE5b (14-Sep-96)
0
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M170 Warning:
+              Exhaust emissions for gasoline fueled vehicles
              beginning in 1995 have been reduced as a result of
              Gasoline Detergent Additive Regulations (1994).
0I/M program #1 selected:                    I/M program #2 selected:

0Start year (Jan 1):  1983                   Start year (Jan 1):  1983
 Pre-1981 stringency: 40%                    Pre-1981 stringency: 40%
 First MYR covered:   1968                   First MYR covered:   1981
 Last MYR covered:    2020                   Last MYR covered:    2020
 Waiver (pre-1981):    3.%                   Waiver (pre-1981):    3.%
 Waiver (1981+):       3.%                   Waiver (1981+):       3.%
 Compliance Rate:     96.%                   Compliance Rate:     96.%
 Inspection type:                            Inspection type:
 Test Only                                   Test Only
 Inspection frequency: Biennial              Inspection frequency: Biennial
 I/M program #1 vehicle types                I/M program #2 vehicle types
      LDGV - Yes                                  LDGV - Yes
     LDGT1 - Yes                                 LDGT1 - Yes
     LDGT2 - No                                  LDGT2 - Yes
      HDGV - No                                   HDGV - No
 1981 & later MYR test type:                 1981 & later MYR test type:
      2500 rpm / Idle                             IM240 test
 Cutpoints, HC:   220.000                    Cutpoints, HC:     0.800
 Cutpoints, CO:     1.200                    Cutpoints, CO:    20.000
 Cutpoints, NOx:  999.000                    Cutpoints, NOx:    2.000

  Low alt, Annl and Bien Insp Freq TECH 1 & 2 I/M cred data
 Bien Insp Freq & TECH 4+ I/M credit 2500/Idle test data
```

```
 Bien Insp Freq & TECH 4+ I/M credit IM240 test data
0Functional Check Program Description:
0Check Start Model Yrs Vehicle Classes Covered    Inspection          Comp    Eff
      (Janl) Covered   LDGV LDGT1 LDGT2 HDGV   Type         Freq      Rate    Adj
 Press 1983  1975-2020 Yes  Yes   Yes   No   Test Only     Biennial  96.0%   1.00
 Purge 1983  1981-2020 Yes  Yes   Yes   No   Test Only     Biennial  96.0%   1.00
 ATP   1983  1975-2020 Yes  Yes   Yes   No   Test Only     Biennial  96.0%   1.00
0Air pump system disablements:       Yes  Catalyst removals:                  Yes
 Fuel inlet restrictor disablements: Yes  Tailpipe lead deposit test:         No
 EGR disablement:                    No   Evaporative system disablements:    No
 PCV system disablements:            No   Missing gas caps:                   No
0Non-methane HC emission factors include all evaporative HC emission factors, except for refueling emissions.
0_____________________________________________________________________________
0Emission factors are as of Jan. 1st of the indicated calendar year.
0User supplied veh registration distributions.
0Cal. Year: 2001        I/M Program: Yes       Ambient Temp: 88.3 / 88.3 / 88.3 (F) Region: Low
                Anti-tam. Program: Yes      Operating Mode: 20.6 / 27.3 / 20.6   Altitude:  500. Ft.
                 Reformulated Gas: No
0STALBANTOWER_JUL                          Minimum Temp:  72. (F)        Maximum Temp:  93. (F)
                      Period 1 RVP:  7.8    Period 2 RVP:  7.8        Period 2 Start Yr: 2000
0 Veh. Type:      LDGV      LDGT1     LDGT2      LDGT      HDGV      LDDV      LDDT      HDDV      MC      All Veh
+
 Veh. Speeds:     25.0      25.0      25.0                 25.0      25.0      25.0      25.0      25.0
    VMT Mix:      0.820     0.091     0.014                0.016     0.014     0.000     0.029     0.016
0Composite Emission Factors (Gm/Mile)
 Non-Meth HC:     0.90      0.73      1.19       0.79      4.28      0.43      0.50      1.76      5.94      1.043
 Exhaust  HC:     0.61      0.53      0.91       0.58      2.05      0.43      0.50      1.76      1.94      0.685
 Evaporat HC:     0.11      0.08      0.12       0.09      1.68                                    3.47      0.182
 Refuel L HC:     0.00      0.00      0.00       0.00      0.00                                              0.000
 Runing L HC:     0.13      0.08      0.12       0.09      0.46                                              0.120
 Rsting L HC:     0.05      0.04      0.05       0.04      0.10                                    0.53      0.056
 Exhaust  CO:     7.99      7.33     11.52       7.89     42.80      1.14      0.00      8.90     20.96      8.674
 Exhaust NOX:     0.95      0.82      1.36       0.89      4.92      1.08      0.00      9.98      0.84      1.272
0Evaporative Emissions by Component          Weathered RVP:  7.4          Hot Soak Temp:  89.4 (F)
 (Hot Soak: g/trip, Diurnals: g, Crankcase: g/mi, Refuel: g/gal, Resting: g/hr)  Running Loss Temp:  90.1 (F)
                                                                              Resting Loss Temp:  83.1 (F)
 Hot Soak         0.58      0.45      0.64       0.50      6.23                                   12.85
 WtDiurnal        0.83      0.79      1.50       1.00     20.89                                   10.93
 Multiple         4.59      4.36      5.65       4.73     29.33
 Crankcase        0.01      0.00      0.00       0.00      0.01                                    0.00
```

Refuel	0.00	0.00	0.00	0.00	0.00		
Resting	0.06	0.05	0.06	0.05	0.10		0.18

JULY
20 MPH

```
1                       PROMPT
MOBILE5B ST ALBAN TOWER
1                       TAMFLG
4                       SPDFLG
3                       VMFLAG
3                       MYMRFG
1                       NEWFLAG
3                       IMFLAG
1                       ALHFLG
8                       ATPFLG
5                       RLFLAG
1                       LOCFLG
1                       TEMFLG
3                       OUTFMT
4                       PRTFLG
1                       IDLFLG
2                       NMGFLG
3                       HCFLAG
.820.091.014.016.014.000.029.016                                        VMT
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                      LDGV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                      LDGT1
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .041 .087 .106 .105 .093 .101 .071 .063 .056 .046                      LDGT2
 .038 .031 .033 .028 .022 .016 .010 .010 .009 .008
 .005 .005 .004 .003 .009
 .023 .047 .047 .047 .047 .038 .033 .021 .026 .029                      HDGV
 .034 .064 .054 .058 .051 .038 .043 .041 .035 .029
 .021 .022 .022 .014 .116
 .047 .097 .098 .101 .103 .099 .080 .072 .052 .043                      LDDV
 .040 .035 .031 .024 .017 .012 .008 .003 .006 .005
 .004 .003 .003 .002 .012
 .098 .160 .147 .137 .111 .083 .063 .045 .025 .016                      LDDT
 .013 .011 .016 .017 .013 .011 .006 .005 .006 .004
 .003 .002 .002 .001 .004
 .034 .067 .067 .066 .066 .073 .061 .040 .041 .051                      HDDV
 .053 .066 .055 .057 .045 .019 .023 .028 .024 .016
 .011 .009 .007 .005 .016
 .029 .052 .068 .084 .080 .093 .075 .074 .074 .086                      MC
 .060 .225 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .000 .000
83 40 68 20 03 03 096 1 2 2211 2211 220. 1.20 999.                      IM-BASIC
83 40 81 20 03 03 096 1 2 2221 4211 0.80 20.0 2.00                      IM240 PROG
83 75 20 2221 12 096. 22211111                                      ATP-ATP PROGRAMS
83 75 20 2221 12 096.                                               ATP-PRESSURE CK
83 81 20 2221 12 096.                                               ATP-PURGE TEST
 16.6 33.9 23.4 13.3 06.1 06.7                                      TRIP LENGTH DIST
1 01 20.0 85.7 20.6 27.3 20.6  1                                SCENERIO DESCRIPTION
STALBANTOWER_JUL B 72.  93.  7.8  7.8 20 1 1 2                      LAP RECORD
```

```
1MOBILE5B ST ALBAN TOWER
 MOBILE5b (14-Sep-96)
0
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.997     MYR sum not = 1. (will normalize)
-M 49 Warning:
+               0.999     MYR sum not = 1. (will normalize)
-M170 Warning:
+              Exhaust emissions for gasoline fueled vehicles
              beginning in 1995 have been reduced as a result of
              Gasoline Detergent Additive Regulations (1994).
0I/M program #1 selected:                    I/M program #2 selected:

0Start year (Jan 1):  1983                   Start year (Jan 1):  1983
 Pre-1981 stringency: 40%                    Pre-1981 stringency: 40%
 First MYR covered:   1968                   First MYR covered:   1981
 Last MYR covered:    2020                   Last MYR covered:    2020
 Waiver (pre-1981):    3.8                   Waiver (pre-1981):    3.8
 Waiver (1981+):       3.8                   Waiver (1981+):       3.8
 Compliance Rate:     96.8                   Compliance Rate:     96.8
 Inspection type:                            Inspection type:
 Test Only                                   Test Only
 Inspection frequency: Biennial              Inspection frequency: Biennial
 I/M program #1 vehicle types                I/M program #2 vehicle types
      LDGV - Yes                                  LDGV - Yes
     LDGT1 - Yes                                 LDGT1 - Yes
     LDGT2 - No                                  LDGT2 - Yes
      HDGV - No                                   HDGV - No
 1981 & later MYR test type:                 1981 & later MYR test type:
      2500 rpm / Idle                             IM240 test
 Cutpoints, HC:   220.000                    Cutpoints, HC:     0.800
 Cutpoints, CO:     1.200                    Cutpoints, CO:    20.000
 Cutpoints, NOx:  999.000                    Cutpoints, NOx:    2.000

  Low alt, Annl and Bien Insp Freq TECH 1 & 2 I/M cred data
 Bien Insp Freq & TECH 4+ I/M credit 2500/Idle test data
```

Bien Insp Freq & TECH 4+ I/M credit IM240 test data

0Functional Check Program Description:

0Check	Start Model Yrs	Vehicle Classes Covered				Inspection		Comp	Eff
	(Janl) Covered	LDGV	LDGT1	LDGT2	HDGV	Type	Freq	Rate	Adj
Press	1983 1975-2020	Yes	Yes	Yes	No	Test Only	Biennial	96.0%	1.00
Purge	1983 1981-2020	Yes	Yes	Yes	No	Test Only	Biennial	96.0%	1.00
ATP	1983 1975-2020	Yes	Yes	Yes	No	Test Only	Biennial	96.0%	1.00

0Air pump system disablements: Yes Catalyst removals: Yes

Fuel inlet restrictor disablements: Yes Tailpipe lead deposit test: No

EGR disablement: No Evaporative system disablements: No

PCV system disablements: No Missing gas caps: No

0Non-methane HC emission factors include all evaporative HC emission factors, except for refueling emissions.

0

0Emission factors are as of Jan. 1st of the indicated calendar year.

0User supplied veh registration distributions.

0Cal. Year: 2001 I/M Program: Yes Ambient Temp: 88.3 / 88.3 / 88.3 (F) Region: Low

Anti-tam. Program: Yes Operating Mode: 20.6 / 27.3 / 20.6 Altitude: 500. Ft.

Reformulated Gas: No

0STALBANTOWER JUL Minimum Temp: 72. (F) Maximum Temp: 93. (F)

Period 1 RVP: 7.8 Period 2 RVP: 7.8 Period 2 Start Yr: 2000

0 Veh. Type:	LDGV	LDGT1	LDGT2	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
Veh. Speeds:	20.0	20.0	20.0		20.0	20.0	20.0	20.0	20.0	
VMT Mix:	0.820	0.091	0.014		0.016	0.014	0.000	0.029	0.016	
0Composite Emission Factors (Gm/Mile)										
Non-Meth HC:	1.07	0.86	1.41	0.93	5.10	0.52	0.60	2.10	6.27	1.225
Exhaust HC:	0.76	0.64	1.09	0.70	2.76	0.52	0.60	2.10	2.26	0.842
Evaporat HC:	0.11	0.08	0.12	0.09	1.68				3.47	0.182
Refuel L HC:	0.00	0.00	0.00	0.00	0.00					0.000
Runing L HC:	0.15	0.10	0.15	0.11	0.57					0.146
Rsting L HC:	0.05	0.04	0.05	0.04	0.10				0.53	0.056
Exhaust CO:	10.35	9.32	14.48	10.01	54.55	1.44	0.00	11.26	26.28	11.174
Exhaust NOX:	0.93	0.81	1.34	0.88	4.72	1.17	0.00	10.81	0.76	1.273

0Evaporative Emissions by Component Weathered RVP: 7.4 Hot Soak Temp: 89.4 (F)

(Hot Soak: g/trip, Diurnals: g, Crankcase: g/mi, Refuel: g/gal, Resting: g/hr) Running Loss Temp: 90.1 (F)

Resting Loss Temp: 83.1 (F)

Hot Soak	0.58	0.45	0.64	0.50	6.23				12.85	
WtDiurnal	0.83	0.79	1.50	1.00	20.89				10.93	
Multiple	4.59	4.36	5.65	4.73	29.33					
Crankcase	0.01	0.00	0.00	0.00	0.01				0.00	

Refuel	0.00	0.00	0.00	0.00	0.00		
Resting	0.06	0.05	0.06	0.05	0.10		0.18

APPENDIX D
CAL3QHCR INPUT AND OUTPUT

(WISCONSIN AVE. & CATHEDRAL AVE., NW)

```
'STALBAN TOWER EX AM W&C'   60.   175.   0.   0.  11  0.3048   1
1 1 01 12 31 01
99999   64   99999   64
0  0  'U'
'REC 2'      -50.      -36.   26.5
'REC 3'       50.      -52.   26.5
'REC 6'       50.       36.   26.5
'REC 7'      -50.       52.   26.5
'REC 9'      -50.      -36.   26.5
'REC 10'     -50.      330.   27.0
'REC 11'      82.      425.   26.5
'REC 12'     -15.      588.   32.4
'REC 13'     -90.      588.   26.4
'PEC 14'    -226.      496.   31.3
'REC 15'    -354.      496.   27.0
1  'C'
1 1 1 1 1 1 1
'STALBAN TOWER EXIST MORNING'    7
1  1
'W&C  NB APPR    '    'AG'       17.    303.    54.     520.  0.   50.
2  2
'W&C  NB QUEUE   '    'AG'       54.    520.    17.     303.  0.   30.0   3
3  1
'W&C  NB DEP     '    'AG'       54.    520.   208.    1523.  0.   50.
4  1
'W&C SB APPR     '    'AG'      177.   1588.    23.     569.  0.   55.
5  2
'W&C SB QUEUE    '    'AG'       23.    569.   177.    1588.  0.   35.0   3
6  1
'W&C SB DEP      '    'AG'       23.    569.     4.     435.  0.   55.
7  1
'W&C WB DEP      '    'AG'       23.    569.  -120.     559.  0.   35.
01   0.0
1     1004.    9.27
2       90     62     1.0    1004   206.96    0  0  3
3     1004.    9.27
4     1490.   13.86
5       90     62     1.0    1490   206.96    0  0 3
6     1420.   13.86
7       70.   17.89
```

JOB: STALBAN TOWER EX AM W&C

RUN: STALBAN TOWER EXIST MORNING

General Information

Run start date: 1/ 1/ 1 Julian: 1
end date: 12/31/ 1 Julian: 365

A Tier 1 approach was used for input data preparation.

The MODE flag has been set to C for calculating CO averages.

Ambient background concentrations are excluded from the averages below.

Site & Meteorological Constants

0 CM/S Z0 = 175. CM ATIM = 60.

Met. Sfc. Sta. Id & Yr = 99999 64
Upper Air Sta. Id & Yr = 99999 64

Urban mixing heights were processed.

In 2001, Julian day 1 is a Monday.

Link Data Constants - (Variable data in *.LNK file)

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	H (FT)	W (FT)	NLANES
1. W&C NB APPR	17.0	303.0	54.0	520.0	220.	10.	AG	.0	50.0	
2. W&C NB QUEUE	54.0	520.0	17.0	303.0	220.	190.	AG	.0	30.0	3
3. W&C NB DEP	54.0	520.0	208.0	1523.0	1015.	9.	AG	.0	50.0	
4. W&C SB APPR	177.0	1588.0	23.0	569.0	1031.	189.	AG	.0	55.0	
5. W&C SB QUEUE	23.0	569.0	177.0	1588.0	1031.	9.	AG	.0	35.0	3
6. W&C SB DEP	23.0	569.0	4.0	435.0	135.	188.	AG	.0	55.0	
7. W&C WB DEP	23.0	569.0	-120.0	559.0	143.	266.	AG	.0	35.0	

JOB: STALBAN TOWER EX AM W&C

RUN: STALBAN TOWER EXIST MORNING

Receptor Data

	RECEPTOR	*	COORDINATES (FT) X	Y	Z
1.	REC 2	*	-50.0	-36.0	26.5
2.	REC 3	*	50.0	-52.0	26.5
3.	REC 6	*	50.0	36.0	26.5
4.	REC 7	*	-50.0	52.0	26.5
5.	REC 9	*	-50.0	-36.0	26.5
6.	REC 10	*	-50.0	330.0	27.0
7.	REC 11	*	82.0	425.0	26.5
8.	REC 12	*	-15.0	588.0	32.4
9.	REC 13	*	-90.0	588.0	26.4
10.	REC 14	*	-226.0	496.0	31.3
11.	REC 15	*	-354.0	496.0	27.0

Model Results

Remarks : In search of the wind direction corresponding to the maximum concentration, only the first direction, of the directions with the same maximum concentrations, is indicated as the maximum.

* MAXIMUM HOURLY CONCENTRATIONS WITH ANY AMBIENT BACKGROUND CONCENTRATIONS (BKG) ADDED (PPM)										
*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10
MAX+BKG *	.6	.6	.7	.8	.6	1.5	2.0	2.0	1.3	.7
- BKG *	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MAX *	.6	.6	.7	.8	.6	1.5	2.0	2.0	1.3	.7
WIND DIR*	12	5	7	7	12	19	328	19	34	44
JULIAN *	7	137	50	50	7	41	154	41	89	48
HOUR *	12	21	8	8	12	14	1	14	22	19

*	REC11
MAX+BKG *	.6
- BKG *	.0
MAX *	.6
WIND DIR*	80
JULIAN *	306
HOUR *	24

JOB: STALBAN TOWER EX AM W&C

RUN: STALBAN TOWER EXIST MORNING

THE HIGHEST CONCENTRATION OF 2.00 PPM OCCURRED AT RECEPTOR REC8 .

JOB: STALBAN TOWER EX AM W&C

RUN: STALBAN TOWER EXIST MORNING

==========
Output Section
==========

NOTES PERTAINING TO THE REPORT

1. THE HIGHEST AVERAGE IN EACH OF THE FIRST TWO COLUMNS OF EACH TABLE BELOW ARE SUFFIXED BY AN ASTERISK (*). FOR PM OUTPUT, THERE IS ONLY ONE COLUMN AND ASTERISK FOR THE ANNUAL AVERAGE/PERIOD OF CONCERN TABLE.

2. THE NUMBERS IN PARENTHESES ARE THE JULIAN DAY AND ENDING HOUR FOR THE PRECEDING AVERAGE.

3. THE NUMBER OF CALM HOURS USED IN PRODUCING EACH AVERAGE ARE PREFIXED BY A C.

PRIMARY AVERAGES.

MAXIMUM 8-HOUR RUNNING NONOVERLAPPING AVERAGE CONCENTRATIONS
IN PARTS PER MILLION (PPM),
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Receptor Number	Highest Conc	Highest Ending Day Hr	Highest Calm	Second highest Conc	Second highest Ending Day Hr	Second highest Calm
1	.34	(273, 6)	C 0	.24	(260, 4)	C 1
2	.26	(273, 8)	C 0	.24	(273,24)	C 1
3	.33	(273,24)	C 1	.33	(273, 6)	C 0
4	.40	(273, 6)	C 0	.29	(83, 7)	C 1
5	.34	(273, 6)	C 0	.24	(260, 4)	C 1
6	.94	(260, 6)	C 1	.80	(157, 5)	C 0
7	.89	(273, 8)	C 0	.89	(212, 3)	C 1
8	1.21*	(260, 6)	C 1	1.06*	(157, 5)	C 0
9	.92	(262, 5)	C 2	.77	(49, 1)	C 2
10	.47	(223, 6)	C 2	.45	(262, 2)	C 2
11	.35	(223, 6)	C 2	.35	(262, 5)	C 2

FIVE HIGHEST 1-HOUR END-TO-END AVERAGE CONCENTRATIONS IN PARTS PER MILLION
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Rcptr No.	Highest Conc	Highest Ending Day Hr	Highest Calm	Second Highest Conc	Second Highest Ending Day Hr	Second Highest Calm	Third Highest Conc	Third Highest Ending Day Hr	Third Highest Calm	Fourth Highest Conc	Fourth Highest Ending Day Hr	Fourth Highest Calm	Fifth Highest Conc	Fifth Highest Ending Day Hr	Fifth Highest Calm
1	.60	(7,12)	C 0	.60	(50, 8)	C 0	.60	(137,21)	C 0	.60	(273, 5)	C 0	.60	(285, 3)	C 0
2	.60	(137,21)	C 0	.60	(194,10)	C 0	.60	(361, 6)	C 0	.50	(40,19)	C 0	.50	(50, 8)	C 0
3	.70	(50, 8)	C 0	.70	(137,21)	C 0	.70	(192, 7)	C 0	.70	(194,10)	C 0	.70	(238,20)	C 0
4	.80	(50, 8)	C 0	.80	(273, 5)	C 0	.80	(285, 3)	C 0	.70	(7,12)	C 0	.70	(137,21)	C 0
5	.60	(7,12)	C 0	.60	(50, 8)	C 0	.60	(137,21)	C 0	.60	(273, 5)	C 0	.60	(285, 3)	C 0
6	1.50	(41,14)	C 0	1.50	(209, 5)	C 0	1.50	(7,12)	C 0	1.50	(217,17)	C 0	1.40	(110,20)	C 0

JOB: STALBAN TOWER EX AM W&C

RUN: STALBAN TOWER EXIST MORNING

FIVE HIGHEST 1-HOUR END-TO-END AVERAGE CONCENTRATIONS IN PARTS PER MILLION
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Rcptr No.	Highest Conc	Highest Ending Day Hr	Calm	Second Highest Conc	Second Highest Ending Day Hr	Calm	Third Highest Conc	Third Highest Ending Day Hr	Calm	Fourth Highest Conc	Fourth Highest Ending Day Hr	Calm	Fifth Highest Conc	Fifth Highest Ending Day Hr	Calm
7	2.00*	(154, 1)	C 0	1.90	(211,24)	C 0	1.90	(288,20)	C 0	1.80	(7,20)	C 0	1.80	(192, 7)	C 0
8	2.00	(41,14)	C 0	2.00*	(138, 3)	C 0	2.00	(180, 4)	C 0	2.00	(209, 5)	C 0	1.90	(110,20)	C 0
9	1.30	(89,22)	C 0	1.30	(110,20)	C 0	1.30	(160, 4)	C 0	1.30	(214, 3)	C 0	1.30	(261,22)	C 0
10	.70	(48,19)	C 0	.70	(83, 3)	C 0	.70	(89,22)	C 0	.70	(137,23)	C 0	.70	(156, 1)	C 0
11	.60	(306,24)	C 0	.50	(24, 4)	C 0	.50	(48,19)	C 0	.50	(49, 4)	C 0	.50	(83, 3)	C 0

JOB: STALBAN TOWER EX AM W&C

RUN: STALBAN TOWER EXIST MORNING

CALM DURATION FREQUENCY

Hours of Consecutive Calm Winds	Frequency of Occurrence	(Julian day/hour ending) of Significant Occurrences
1	188	(7,13)(11, 5)(11,13)(21,24)(23,19)(29, 5)(31, 3)(31, 6)(34,24)(35, 6) (40,18)(42,23)(43, 5)(46, 2)(46,14)(48, 5)(54, 2)(54, 6)(56, 2)(59, 8) (62, 6)(62,23)(71,19)(72,23)(73, 4)(73, 8)(76, 8)(83, 4)(84,23)(85, 1) (105, 7)(110,18)(111,20)(125, 5)(126, 2)(126, 4)(132,21)(136, 8)(137, 4)(137, 6) (143,21)(144, 1)(154, 4)(154, 6)(156, 6)(158, 1)(160,24)(164, 1)(169, 6)(174, 4) (174,20)(175,21)(179, 6)(180, 5)(180,24)(182, 3)(182, 6)(184, 1)(188, 7)(188,24) (190, 2)(190,24)(191, 4)(191, 6)(192, 1)(192, 6)(193, 3)(193,23)(195,24)(198, 8) (199,20)(201,21)(201,24)(202, 2)(202, 5)(202,23)(203, 6)(204, 2)(204, 5)(204, 7) (205,22)(205,24)(206, 2)(206, 4)(210, 5)(212, 2)(214, 9)(214,21)(214,23)(215, 2) (215, 4)(215,21)(228,23)(230, 3)(233, 4)(238, 5)(239,22)(240, 2)(242, 3)(242,21) (242,23)(243, 1)(243,23)(244, 2)(244, 5)(246,22)(246,24)(247, 7)(248, 5)(250,22) (253,21)(255, 1)(257,24)(258, 3)(259,24)(260,21)(261, 1)(261, 6)(261, 8)(261,21) (261,24)(262, 3)(262, 7)(263, 1)(263, 3)(266, 4)(267, 3)(270, 1)(270, 5)(271,21) (273,14)(273,20)(276, 8)(277, 1)(280,23)(285, 8)(285,19)(288,19)(288,22)(289, 7) (289,18)(289,20)(289,24)(291,18)(292, 4)(292, 8)(294, 6)(297,23)(299, 4)(300, 6) (300, 8)(301, 4)(301, 7)(301,19)(302, 5)(306, 7)(306,15)(306,20)(307, 2)(308, 7) (308,22)(309,17)(311,19)(311,21)(312,18)(312,21)(314, 5)(315, 1)(319,11)(319,21) (320,20)(324,15)(329, 4)(329, 6)(336, 8)(338,21)(338,23)(339,11)(344,19)(344,21) (346, 8)(347, 5)(347,16)(356,19)(356,21)(357, 1)(357,23)(363,19)
2	55	(23,24)(24, 3)(29, 8)(36,18)(43, 3)(46, 6)(48,22)(49, 3)(102, 3)(111,24) (125,23)(136, 6)(139, 2)(139, 6)(156, 3)(157,21)(174,23)(193, 1)(196, 4)(198, 6) (198,23)(200,23)(203, 2)(203,22)(205, 1)(205, 5)(205, 8)(208,23)(222,24)(242, 6) (247, 3)(249,24)(250, 3)(250, 6)(250, 9)(261, 4)(262,20)(262,23)(272, 1)(279, 5) (281, 7)(286, 7)(288, 8)(289, 1)(299, 2)(301,23)(302, 2)(302,23)(306,23)(328,22) (329, 9)(344,24)(355,24)(356, 8)(361,10)
3	27	(18,23)(45,24)(49, 7)(53, 7)(102, 7)(107, 2)(144, 6)(160, 7)(180,22)(183, 2) (193, 7)(194, 3)(199,24)(202,21)(209, 4)(218, 3)(228, 7)(230, 7)(243, 6)(280, 5) (281, 3)(289, 5)(301, 2)(312, 7)(320, 4)(329,19)(356, 4)
4	12	(87,24)(170, 2)(198, 3)(209,24)(233, 1)(248, 1)(254,23)(269,23)(280, 1)(300,22) (312, 3)(320, 9)
5	12	(142,24)(143, 6)(147, 2)(169, 4)(178, 7)(188, 4)(189, 6)(228, 3)(254, 6)(286,23) (295, 1)(307, 8)
6	6	(59, 6)(199, 6)(238, 2)(259, 3)(288, 5)(298, 6)

```
          7               3         (229, 7)(286, 3)(310, 2)
          9               2         (220, 6)(252, 5)
         10               3         (253, 7)(305, 9)(309, 9)

Program terminated normally
```

```
'STALBAN TOWER EX PM W&C'   60.   175.   0.   0.  11  0.3048   1
1 1 01 12 31 01
99999   64   99999   64
0  0  'U'
'REC 2'      -50.      -36.   26.5
'REC 3'       50.      -52.   26.5
'REC 6'       50.       36.   26.5
'REC 7'      -50.       52.   26.5
'REC 9'      -50.      -36.   26.5
'REC 10'     -50.      330.   27.0
'REC 11'      82.      425.   26.5
'REC 12'     -15.      588.   32.4
'REC 13'     -90.      588.   26.4
'REC 14'    -226.      496.   31.3
'REC 15'    -354.      496.   27.0
1  'C'
1 1 1 1 1 1 1
'STALBAN TOWER EXIST EVENING'    7
1  1
'W&C  NB APPR    '   'AG'       17.    303.    54.     520.  0.   50.
2  2
'W&C  NB QUEUE   '   'AG'       54.    520.    17.     303.  0.   30.0   3
3  1
'W&C  NB DEP     '   'AG'       54.    520.   208.    1523.  0.   50.
4  1
'W&C SB APPR     '   'AG'      177.   1588.    23.     569.  0.   55.
5  2
'W&C SB QUEUE    '   'AG'       23.    569.   177.    1588.  0.   35.0   3
6  1
'W&C SB DEP      '   'AG'       23.    569.     4.     435.  0.   55.
7  1
'W&C WB DEP      '   'AG'       23.    569.  -120.     559.  0.   25.
01   0.0
1     1324.     9.27
2      90      62      1.0    1324   206.96    0  0  3
3     1324.     9.27
4      975.    13.86
5      90      62      1.0     975   206.96    0  0 3
6      894.    13.86
7       81.    17.89
```

JOB: STALBAN TOWER EX PM W&C

RUN: STALBAN TOWER EXIST EVENING

General Information

Run start date: 1/ 1/ 1 Julian: 1
end date: 12/31/ 1 Julian: 365

A Tier 1 approach was used for input data preparation.

The MODE flag has been set to C for calculating CO averages.

Ambient background concentrations are excluded from the averages below.

Site & Meteorological Constants

VS = 0 CM/S VD = 0 CM/S Z0 = 175. CM ATIM = 60.

Met. Sta. Id & Yr = 99999 64
Upper Air Sta. Id & Yr = 99999 64

Urban mixing heights were processed.

In 2001, Julian day 1 is a Monday.

Link Data Constants - (Variable data in *.LNK file)

	LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	H (FT)	W (FT)	NLANES
1.	W&C NB APPR	17.0	303.0	54.0	520.0	220.	10.	AG	.0	50.0	
2.	W&C NB QUEUE	54.0	520.0	17.0	303.0	220.	190.	AG	.0	30.0	3
3.	W&C NB DEP	54.0	520.0	208.0	1523.0	1015.	9.	AG	.0	50.0	
4.	W&C SB APPR	177.0	1588.0	23.0	569.0	1031.	189.	AG	.0	55.0	
5.	W&C SB QUEUE	23.0	569.0	177.0	1588.0	1031.	9.	AG	.0	35.0	3
6.	W&C SB DEP	23.0	569.0	4.0	435.0	135.	188.	AG	.0	55.0	
7.	W&C WB DEP	23.0	569.0	-120.0	559.0	143.	266.	AG	.0	25.0	

TIME : 6:37:59

JOB: STALBAN TOWER EX PM W&C RUN: STALBAN TOWER EXIST EVENING

Receptor Data

	RECEPTOR	*	COORDINATES (FT) X	Y	Z
1.	REC 2	*	-50.0	-36.0	26.5
2.	REC 3	*	50.0	-52.0	26.5
3.	REC 6	*	50.0	36.0	26.5
4.	REC 7	*	-50.0	52.0	26.5
5.	REC 9	*	-50.0	-36.0	26.5
6.	REC 10	*	-50.0	330.0	27.0
7.	REC 11	*	82.0	425.0	26.5
8.	REC 12	*	-15.0	588.0	32.4
9.	REC 13	*	-90.0	588.0	26.4
10.	REC 14	*	-226.0	496.0	31.3
11.	REC 15	*	-354.0	496.0	27.0

Model Results

Remarks : In search of the wind direction corresponding to the maximum concentration, only the first direction, of the directions with the same maximum concentrations, is indicated as the maximum.

MAXIMUM HOURLY CONCENTRATIONS WITH ANY AMBIENT BACKGROUND CONCENTRATIONS (BKG) ADDED (PPM)

	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10
MAX+BKG	.6	.6	.7	.8	.6	1.2	1.9	1.3	1.1	.7
- BKG	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MAX	.6	.6	.7	.8	.6	1.2	1.9	1.3	1.1	.7
WIND DIR	12	5	1	12	12	26	328	168	138	107
JULIAN	7	137	194	7	7	110	154	22	158	154
HOUR	12	21	10	12	12	20	1	9	22	2

	REC11
MAX+BKG	.5
BKG	.0
MAX	.5
WIND DIR	103
JULIAN	313
HOUR	13

JOB: STALBAN TOWER EX PM W&C

RUN: STALBAN TOWER EXIST EVENING

THE HIGHEST CONCENTRATION OF 1.90 PPM OCCURRED AT RECEPTOR REC7 .

==========
Output Section
==========

NOTES PERTAINING TO THE REPORT

1. THE HIGHEST AVERAGE IN EACH OF THE FIRST TWO COLUMNS OF EACH TABLE BELOW ARE SUFFIXED BY AN ASTERISK (*). FOR PM OUTPUT, THERE IS ONLY ONE COLUMN AND ASTERISK FOR THE ANNUAL AVERAGE/PERIOD OF CONCERN TABLE.

2. THE NUMBERS IN PARENTHESES ARE THE JULIAN DAY AND ENDING HOUR FOR THE PRECEDING AVERAGE.

3. THE NUMBER OF CALM HOURS USED IN PRODUCING EACH AVERAGE ARE PREFIXED BY A C.

PRIMARY AVERAGES.

MAXIMUM 8-HOUR RUNNING NONOVERLAPPING AVERAGE CONCENTRATIONS
IN PARTS PER MILLION (PPM),
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Receptor Number	Highest Conc	Highest Ending Day Hr	Highest Calm	Second highest Conc	Second highest Ending Day Hr	Second highest Calm
1	.25	(273, 6)	C 0	.16	(83, 7)	C 1
2	.19	(273,24)	C 1	.16	(50,12)	C 0
3	.26	(273, 8)	C 0	.23	(192, 7)	C 2
4	.36	(273, 6)	C 0	.29	(260, 4)	C 1
5	.25	(273, 6)	C 0	.16	(83, 7)	C 1
6	.80*	(262, 5)	C 2	.70*	(279, 7)	C 2
7	.70	(258, 9)	C 1	.70	(181, 6)	C 1
8	.60	(161, 4)	C 1	.55	(98, 5)	C 0
9	.63	(307, 1)	C 3	.59	(306, 8)	C 1
10	.30	(234, 5)	C 0	.28	(345, 5)	C 2
11	.21	(306, 8)	C 1	.21	(308, 8)	C 1

JOB: STALBAN TOWER EX PM W&C

RUN: STALBAN TOWER EXIST EVENING

FIVE HIGHEST 1-HOUR END-TO-END AVERAGE CONCENTRATIONS IN PARTS PER MILLION
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Rcptr No.	Highest Conc	Ending Day Hr	Calm	Second Highest Conc	Ending Day Hr	Calm	Third Highest Conc	Ending Day Hr	Calm	Fourth Highest Conc	Ending Day Hr	Calm	Fifth Highest Conc	Ending Day Hr	Calm
1	.60	(7,12)	C 0	.60	(50, 8)	C 0	.60	(137,21)	C 0	.60	(273, 5)	C 0	.60	(285, 3)	C 0
2	.60	(137,21)	C 0	.60	(194,10)	C 0	.60	(361, 6)	C 0	.50	(50, 8)	C 0	.50	(285, 3)	C 0
3	.70	(194,10)	C 0	.60	(50, 8)	C 0	.60	(137,21)	C 0	.60	(192, 7)	C 0	.60	(238,20)	C 0
4	.80	(7,12)	C 0	.80	(217,17)	C 0	.70	(50, 8)	C 0	.70	(273, 5)	C 0	.70	(285, 3)	C 0
5	.60	(7,12)	C 0	.60	(50, 8)	C 0	.60	(137,21)	C 0	.60	(273, 5)	C 0	.60	(285, 3)	C 0
6	1.20	(110,20)	C 0	1.20	(160, 4)	C 0	1.20	(89,22)	C 0	1.20	(279, 3)	C 0	1.10	(138, 3)	C 0
7	1.90*	(154, 1)	C 0	1.50*	(159,20)	C 0	1.40	(7,20)	C 0	1.30	(211,24)	C 0	1.30	(247, 1)	C 0
8	1.30	(22, 9)	C 0	1.30	(258, 8)	C 0	1.00	(18, 1)	C 0	1.00	(19, 1)	C 0	1.00	(32, 3)	C 0
9	1.10	(158,22)	C 0	1.10	(306,24)	C 0	1.00	(258, 8)	C 0	.90	(160,22)	C 0	.90	(288, 9)	C 0
10	.70	(154, 2)	C 0	.70	(160,22)	C 0	.70	(313,13)	C 0	.60	(107, 3)	C 0	.60	(306,24)	C 0
11	.50	(313,13)	C 0	.40	(154, 2)	C 0	.40	(160,22)	C 0	.40	(306,24)	C 0	.30	(46, 4)	C 0

JOB: STALBAN TOWER EX PM W&C

RUN: STALBAN TOWER EXIST EVENING

CALM DURATION FREQUENCY

Hours of Consecutive Calm Winds	Frequency of Occurrence	(Julian day/hour ending) of Significant Occurrences
1	188	(7,13)(11, 5)(11,13)(21,24)(23,19)(29, 5)(31, 3)(31, 6)(34,24)(35, 6) (40,18)(42,23)(43, 5)(46, 2)(46,14)(48, 5)(54, 2)(54, 6)(56, 2)(59, 8) (62, 6)(62,23)(71,19)(72,23)(73, 4)(73, 8)(76, 8)(83, 4)(84,23)(85, 1) (105, 7)(110,18)(111,20)(125, 5)(126, 2)(126, 4)(132,21)(136, 8)(137, 4)(137, 6) (143,21)(144, 1)(154, 4)(154, 6)(156, 6)(158, 1)(160,24)(164, 1)(169, 6)(174, 4) (174,20)(175,21)(179, 6)(180, 5)(180,24)(182, 3)(182, 6)(184, 1)(188, 7)(188,24) (190, 2)(190,24)(191, 4)(191, 6)(192, 1)(192, 6)(193, 3)(193,23)(195,24)(198, 8) (199,20)(201,21)(201,24)(202, 2)(202, 5)(202,23)(203, 6)(204, 2)(204, 5)(204, 7) (205,22)(205,24)(206, 2)(206, 4)(210, 5)(212, 2)(214, 9)(214,21)(214,23)(215, 2) (215, 4)(215,21)(228,23)(230, 3)(233, 4)(238, 5)(239,22)(240, 2)(242, 3)(242,21) (242,23)(243, 1)(243,23)(244, 2)(244, 5)(246,22)(246,24)(247, 7)(248, 5)(250,22) (253,21)(255, 1)(257,24)(258, 3)(259,24)(260,21)(261, 1)(261, 6)(261, 8)(261,21) (261,24)(262, 3)(262, 7)(263, 1)(263, 3)(266, 4)(267, 3)(270, 1)(270, 5)(271,21) (273,14)(273,20)(276, 8)(277, 1)(280,23)(285, 8)(285,19)(288,19)(288,22)(289, 7) (289,18)(289,20)(289,24)(291,18)(292, 4)(292, 8)(294, 6)(297,23)(299, 4)(300, 6) (300, 8)(301, 4)(301, 7)(301,19)(302, 5)(306, 7)(306,15)(306,20)(307, 2)(308, 7) (308,22)(309,17)(311,19)(311,21)(312,18)(312,21)(314, 5)(315, 1)(319,11)(319,21) (320,20)(324,15)(329, 4)(329, 6)(336, 8)(338,21)(338,23)(339,11)(344,19)(344,21) (346, 8)(347, 5)(347,16)(356,19)(356,21)(357, 1)(357,23)(363,19)
2	55	(23,24)(24, 3)(29, 8)(36,18)(43, 3)(46, 6)(48,22)(49, 3)(102, 3)(111,24) (125,23)(136, 6)(139, 2)(139, 6)(156, 3)(157,21)(174,23)(193, 1)(196, 4)(198, 6) (198,23)(200,23)(203, 2)(203,22)(205, 1)(205, 5)(205, 8)(208,23)(222,24)(242, 6) (247, 3)(249,24)(250, 3)(250, 6)(250, 9)(261, 4)(262,20)(262,23)(272, 1)(279, 5) (281, 7)(286, 7)(288, 8)(289, 1)(299, 2)(301,23)(302, 2)(302,23)(306,23)(328,22) (329, 9)(344,24)(355,24)(356, 8)(361,10)
3	27	(18,23)(45,24)(49, 7)(53, 7)(102, 7)(107, 2)(144, 6)(160, 7)(180,22)(183, 2) (193, 7)(194, 3)(199,24)(202,21)(209, 4)(218, 3)(228, 7)(230, 7)(243, 6)(280, 5) (281, 3)(289, 5)(301, 2)(312, 7)(320, 4)(329,19)(356, 4)
4	12	(87,24)(170, 2)(198, 3)(209,24)(233, 1)(248, 1)(254,23)(269,23)(280, 1)(300,22) (312, 3)(320, 9)
5	12	(142,24)(143, 6)(147, 2)(169, 4)(178, 7)(188, 4)(189, 6)(228, 3)(254, 6)(286,23) (295, 1)(307, 8)
6	6	(59, 6)(199, 6)(238, 2)(259, 3)(288, 5)(298, 6)

```
          7               3         (229, 7)(286, 3)(310, 2)
          9               2         (220, 6)(252, 5)
         10               3         (253, 7)(305, 9)(309, 9)

Program terminated normally
```

```
'STALBAN TOWER PR AM W&C'   60.   175.   0.   0.  11  0.3048   1
1 1 01 12 31 01
99999   64   99999   64
0  0  'U'
'REC 2'      -50.      -36.   26.5
'REC 3'       50.      -52.   26.5
'REC 6'       50.       36.   26.5
'REC 7'      -50.       52.   26.5
'REC 9'      -50.      -36.   26.5
'REC 10'     -50.      330.   27.0
'REC 11'      82.      425.   26.5
'REC 12'     -15.      588.   32.4
'REC 12'     -90.      588.   26.4
'REC 14'    -226.      496.   31.3
'REC 15'    -354.      496.   27.0
1  'C'
1 1 1 1 1 1 1
'STALBAN TOWER PROP. MORNING'    7
1  1
'W&C  NB APPR    '   'AG'       17.    303.    54.     520.  0.   50.
2  2
'W&C  NB QUEUE   '   'AG'       54.    520.    17.     303.  0.   30.0   3
3  1
'W&C  NB DEP     '   'AG'       54.    520.   208.    1523.  0.   50.
4  1
'W&C SB APPR     '   'AG'      177.   1588.    23.     569.  0.   55.
5  2
'W&C SB QUEUE    '   'AG'       23.    569.   177.    1588.  0.   35.0   3
6  1
'W&C SB DEP      '   'AG'       23.    569.     4.     435.  0.   55.
7  1
'W&C WB DEP      '   'AG'       23.    569.  -120.     559.  0.   25.
01   0.0
1     1019.    9.27
2       90     62     1.0    1019   206.96    0  0  3
3     1019.    9.27
4     1493.   13.86
5       90     62     1.0    1493   206.96    0  0 3
6     1493.   13.86
7       70.   17.89
```

JOB: STALBAN TOWER PR AM W&C

RUN: STALBAN TOWER PROP. MORNING

General Information

Run start date: 1/ 1/ 1 Julian: 1
end date: 12/31/ 1 Julian: 365

A Tier 1 approach was used for input data preparation.

The MODE flag has been set to C for calculating CO averages.

Ambient background concentrations are excluded from the averages below.

Site & Meteorological Constants

VS = .0 CM/S VD = .0 CM/S Z0 = 175. CM ATIM = 60.

Met. Sfc. Sta. Id & Yr = 99999 64
Upper Air Sta. Id & Yr = 99999 64

Urban mixing heights were processed.

In 2001, Julian day 1 is a Monday.

Link Data Constants - (Variable data in *.LNK file)

	LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	*	LENGTH (FT)	BRG (DEG)	TYPE	H (FT)	W (FT)	NLANES
1.	W&C NB APPR	*	17.0	303.0	54.0	520.0	*	220.	10.	AG	.0	50.0	
2.	W&C NB QUEUE	*	54.0	520.0	17.0	303.0	*	220.	190.	AG	.0	30.0	3
3.	W&C NB DEP	*	54.0	520.0	208.0	1523.0	*	1015.	9.	AG	.0	50.0	
4.	W&C SB APPR	*	177.0	1588.0	23.0	569.0	*	1031.	189.	AG	.0	55.0	
5.	W&C SB QUEUE	*	23.0	569.0	177.0	1588.0	*	1031.	9.	AG	.0	35.0	3
6.	W&C SB DEP	*	23.0	569.0	4.0	435.0	*	135.	188.	AG	.0	55.0	
7.	W&C WB DEP	*	23.0	569.0	-120.0	559.0	*	143.	266.	AG	.0	25.0	

Receptor Data

	RECEPTOR	*	COORDINATES (FT) X	Y	Z
1.	REC 2	*	-50.0	-36.0	26.5
2.	REC 3	*	50.0	-52.0	26.5
3.	REC 6	*	50.0	36.0	26.5
4.	REC 7	*	-50.0	52.0	26.5
5.	REC 9	*	-50.0	-36.0	26.5
6.	REC 10	*	-50.0	330.0	27.0
7.	REC 11	*	82.0	425.0	26.5
8.	REC 12	*	-15.0	588.0	32.4
9.	REC 13	*	90.0	588.0	26.4
10.	REC 14	*	-226.0	496.0	31.3
11.	REC 15	*	-354.0	496.0	27.0

Model Results

Remarks : In search of the wind direction corresponding to the maximum concentration, only the first direction, of the directions with the same maximum concentrations, is indicated as the maximum.

	MAXIMUM HOURLY CONCENTRATIONS WITH ANY AMBIENT BACKGROUND CONCENTRATIONS (BKG) ADDED (PPM)									
	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10
MAX+BKG	.6	.6	.7	.8	.6	1.6	2.0	2.0	1.3	.8
- BKG	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MAX	.6	.6	.7	.8	.6	1.6	2.0	2.0	1.3	.8
WIND DIR	12	5	7	12	12	20	328	19	34	40
JULIAN	7	137	50	7	7	209	154	41	89	214
HOUR	12	21	8	12	12	5	1	14	22	3

	REC11
MAX+BKG	.6
- BKG	.0
MAX	.6
WIND DIR	80
JULIAN	306
HOUR	24

JOB: STALBAN TOWER PR AM W&C

RUN: STALBAN TOWER PROP. MORNING

THE HIGHEST CONCENTRATION OF 2.00 PPM OCCURRED AT RECEPTOR REC8 .

==========
Output Section
==========

NOTES PERTAINING TO THE REPORT

1. THE HIGHEST AVERAGE IN EACH OF THE FIRST TWO COLUMNS OF EACH TABLE BELOW ARE SUFFIXED BY AN ASTERISK (*). FOR PM OUTPUT, THERE IS ONLY ONE COLUMN AND ASTERISK FOR THE ANNUAL AVERAGE/PERIOD OF CONCERN TABLE.

2. THE NUMBERS IN PARENTHESES ARE THE JULIAN DAY AND ENDING HOUR FOR THE PRECEDING AVERAGE.

3. THE NUMBER OF CALM HOURS USED IN PRODUCING EACH AVERAGE ARE PREFIXED BY A C.

PRIMARY AVERAGES.

MAXIMUM 8-HOUR RUNNING NONOVERLAPPING AVERAGE CONCENTRATIONS
IN PARTS PER MILLION (PPM),
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Receptor Number	Highest Conc	Highest Ending Day Hr	Highest Calm	Second highest Conc	Second highest Ending Day Hr	Second highest Calm
1	.34	(273, 6)	C 0	.24	(260, 4)	C 1
2	.26	(273, 8)	C 0	.24	(273,24)	C 1
3	.33	(273,24)	C 1	.33	(273, 6)	C 0
4	.40	(273, 6)	C 0	.29	(83, 7)	C 1
5	.34	(273, 6)	C 0	.24	(260, 4)	C 1
6	.94	(260, 6)	C 1	.80	(157, 5)	C 0
7	.89	(273, 8)	C 0	.89	(212, 3)	C 1
8	1.21*	(260, 6)	C 1	1.06*	(157, 5)	C 0
9	.92	(262, 5)	C 2	.77	(279, 7)	C 2
10	.48	(262, 2)	C 2	.47	(223, 6)	C 2
11	.35	(223, 6)	C 2	.35	(262, 5)	C 2

JOB: STALBAN TOWER PR AM W&C

RUN: STALBAN TOWER PROP. MORNING

FIVE HIGHEST 1-HOUR END-TO-END AVERAGE CONCENTRATIONS IN PARTS PER MILLION
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Rcptr	Highest			Second Highest			Third Highest			Fourth Highest			Fifth Highest		
No.	Conc	Ending Day Hr	Calm	Conc	Ending Day Hr	Calm	Conc	Ending Day Hr	Calm	Conc	Ending Day Hr	Calm	Conc	Ending Day Hr	Calm
1	.60	(7,12)	C 0	.60	(50, 8)	C 0	.60	(137,21)	C 0	.60	(273, 5)	C 0	.60	(285, 3)	C 0
2	.60	(137,21)	C 0	.60	(194,10)	C 0	.60	(361, 6)	C 0	.50	(40,19)	C 0	.50	(50, 8)	C 0
3	.70	(50, 8)	C 0	.70	(137,21)	C 0	.70	(192, 7)	C 0	.70	(194,10)	C 0	.70	(238,20)	C 0
4	.80	(7,12)	C 0	.80	(50, 8)	C 0	.80	(273, 5)	C 0	.80	(285, 3)	C 0	.70	(137,21)	C 0
5	.60	(7,12)	C 0	.60	(50, 8)	C 0	.60	(137,21)	C 0	.60	(273, 5)	C 0	.60	(285, 3)	C 0
6	1.60	(209, 5)	C 0	1.50	(41,14)	C 0	1.50	(7,12)	C 0	1.50	(217,17)	C 0	1.40	(110,20)	C 0
7	2.00*	(154, 1)	C 0	1.90	(211,24)	C 0	1.90	(288,20)	C 0	1.80	(7,20)	C 0	1.80	(192, 7)	C 0
8	2.00	(41,14)	C 0	2.00*	(138, 3)	C 0	2.00	(180, 4)	C 0	2.00	(209, 5)	C 0	2.00	(217,17)	C 0
9	1.30	(89,22)	C 0	1.30	(110,20)	C 0	1.30	(160, 4)	C 0	1.30	(214, 3)	C 0	1.30	(261,22)	C 0
10	.80	(214, 3)	C 0	.80	(288,23)	C 0	.80	(289, 6)	C 0	.70	(48,19)	C 0	.70	(83, 3)	C 0
11	.60	(306,24)	C 0	.50	(24, 4)	C 0	.50	(48,19)	C 0	.50	(49, 4)	C 0	.50	(83, 3)	C 0

JOB: STALBAN TOWER PR AM W&C

RUN: STALBAN TOWER PROP. MORNING

CALM DURATION FREQUENCY

Hours of Consecutive Calm Winds	Frequency of Occurrence	(Julian day/hour ending) of Significant Occurrences
1	188	(7,13)(11, 5)(11,13)(21,24)(23,19)(29, 5)(31, 3)(31, 6)(34,24)(35, 6) (40,18)(42,23)(43, 5)(46, 2)(46,14)(48, 5)(54, 2)(54, 6)(56, 2)(59, 8) (62, 6)(62,23)(71,19)(72,23)(73, 4)(73, 8)(76, 8)(83, 4)(84,23)(85, 1) (105, 7)(110,18)(111,20)(125, 5)(126, 2)(126, 4)(132,21)(136, 8)(137, 4)(137, 6) (143,21)(144, 1)(154, 4)(154, 6)(156, 6)(158, 1)(160,24)(164, 1)(169, 6)(174, 4) (174,20)(175,21)(179, 6)(180, 5)(180,24)(182, 3)(182, 6)(184, 1)(188, 7)(188,24) (190, 2)(190,24)(191, 4)(191, 6)(192, 1)(192, 6)(193, 3)(193,23)(195,24)(198, 8) (199,20)(201,21)(201,24)(202, 2)(202, 5)(202,23)(203, 6)(204, 2)(204, 5)(204, 7) (205,22)(205,24)(206, 2)(206, 4)(210, 5)(212, 2)(214, 9)(214,21)(214,23)(215, 2) (215, 4)(215,21)(228,23)(230, 3)(233, 4)(238, 5)(239,22)(240, 2)(242, 3)(242,21) (242,23)(243, 1)(243,23)(244, 2)(244, 5)(246,22)(246,24)(247, 7)(248, 5)(250,22) (253,21)(255, 1)(257,24)(258, 3)(259,24)(260,21)(261, 1)(261, 6)(261, 8)(261,21) (261,24)(262, 3)(262, 7)(263, 1)(263, 3)(266, 4)(267, 3)(270, 1)(270, 5)(271,21) (273,14)(273,20)(276, 8)(277, 1)(280,23)(285, 8)(285,19)(288,19)(288,22)(289, 7) (289,18)(289,20)(289,24)(291,18)(292, 4)(292, 8)(294, 6)(297,23)(299, 4)(300, 6) (300, 8)(301, 4)(301, 7)(301,19)(302, 5)(306, 7)(306,15)(306,20)(307, 2)(308, 7) (308,22)(309,17)(311,19)(311,21)(312,18)(312,21)(314, 5)(315, 1)(319,11)(319,21) (320,20)(324,15)(329, 4)(329, 6)(336, 8)(338,21)(338,23)(339,11)(344,19)(344,21) (346, 8)(347, 5)(347,16)(356,19)(356,21)(357, 1)(357,23)(363,19)
2	55	(23,24)(24, 3)(29, 8)(36,18)(43, 3)(46, 6)(48,22)(49, 3)(102, 3)(111,24) (125,23)(136, 6)(139, 2)(139, 6)(156, 3)(157,21)(174,23)(193, 1)(196, 4)(198, 6) (198,23)(200,23)(203, 2)(203,22)(205, 1)(205, 5)(205, 8)(208,23)(222,24)(242, 6) (247, 3)(249,24)(250, 3)(250, 6)(250, 9)(261, 4)(262,20)(262,23)(272, 1)(279, 5) (281, 7)(286, 7)(288, 8)(289, 1)(299, 2)(301,23)(302, 2)(302,23)(306,23)(328,22) (329, 9)(344,24)(355,24)(356, 8)(361,10)
3	27	(18,23)(45,24)(49, 7)(53, 7)(102, 7)(107, 2)(144, 6)(160, 7)(180,22)(183, 2) (193, 7)(194, 3)(199,24)(202,21)(209, 4)(218, 3)(228, 7)(230, 7)(243, 6)(280, 5) (281, 3)(289, 5)(301, 2)(312, 7)(320, 4)(329,19)(356, 4)
4	12	(87,24)(170, 2)(198, 3)(209,24)(233, 1)(248, 1)(254,23)(269,23)(280, 1)(300,22) (312, 3)(320, 9)
5	12	(142,24)(143, 6)(147, 2)(169, 4)(178, 7)(188, 4)(189, 6)(228, 3)(254, 6)(286,23) (295, 1)(307, 8)
6	6	(59, 6)(199, 6)(238, 2)(259, 3)(288, 5)(298, 6)

```
          7               3         (229, 7)(286, 3)(310, 2)
          9               2         (220, 6)(252, 5)
         10               3         (253, 7)(305, 9)(309, 9)

Program terminated normally
```

```
'STALBAN TOWER PR PM W&C'   60.   175.   0.   0.  11  0.3048   1
1 1 01 12 31 01
99999   64   99999   64
0  0  'U'
'REC 2'      -50.      -36.   26.5
'REC 3'       50.      -52.   26.5
'REC 6'       50.       36.   26.5
'REC 7'      -50.       52.   26.5
'REC 9'      -50.      -36.   26.5
'REC 10'     -50.      330.   27.0
'REC 11'      82.      425.   26.5
'REC 12'     -15.      588.   32.4
'REC 13'     -90.      588.   26.4
'REC 14'    -226.      496.   31.3
'REC 15'    -354.      496.   27.0
1  'C'
1 1 1 1 1 1 1
'STALBAN TOWER PROP. EVENING'    7
1  1
'W&C  NB APPR   '   'AG'       17.    303.    54.     520.  0.   50.
2  2
'W&C  NB QUEUE  '   'AG'       54.    520.    17.     303.  0.   30.0   3
3  1
'W&C  NB DEP    '   'AG'       54.    520.   208.    1523.  0.   50.
4  1
'W&C SB APPR    '   'AG'      177.   1588.    23.     569.  0.   55.
5  2
'W&C SB QUEUE   '   'AG'       23.    569.   177.    1588.  0.   35.0   3
6  1
'W&C SB DEP     '   'AG'       23.    569.     4.     435.  0.   55.
7  1
'W&C WB DEP     '   'AG'       23.    569.  -120.     559.  0.   25.
01   0.0
1     1331.    9.27
2       90     62     1.0    1331   206.96    0  0  3
3     1331.    9.27
4      990.   13.86
5       90     62     1.0     909   206.96    0  0 3
6      909.   13.86
7       81.   17.89
```

JOB: STALBAN TOWER PR PM W&C

RUN: STALBAN TOWER PROP. EVENING

General Information

Run start date: 1/ 1/ 1 Julian: 1
end date: 12/31/ 1 Julian: 365

A Tier 1 approach was used for input data preparation.

The MODE flag has been set to C for calculating CO averages.

Ambient background concentrations are excluded from the averages below.

Site & Meteorological Constants

VS = .0 CM/S VD = .0 CM/S Z0 = 175. CM ATIM = 60.

Met. Sfc. Sta. Id & Yr = 99999 64
Upper Air Sta. Id & Yr = 99999 64

Urban mixing heights were processed.

In 2001, Julian day 1 is a Monday.

Link Data Constants - (Variable data in *.LNK file)

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	H (FT)	W (FT)	NLANES
1. W&C NB APPR	17.0	303.0	54.0	520.0	220.	10.	AG	.0	50.0	
2. W&C NB QUEUE	54.0	520.0	17.0	303.0	220.	190.	AG	.0	30.0	3
3. W&C NB DEP	54.0	520.0	208.0	1523.0	1015.	9.	AG	.0	50.0	
4. W&C SB APPR	177.0	1588.0	23.0	569.0	1031.	189.	AG	.0	55.0	
5. W&C SB QUEUE	23.0	569.0	177.0	1588.0	1031.	9.	AG	.0	35.0	3
6. W&C SB DEP	23.0	569.0	4.0	435.0	135.	188.	AG	.0	55.0	
7. W&C WB DEP	23.0	569.0	-120.0	559.0	143.	266.	AG	.0	25.0	

JOB: STALBAN TOWER PR PM W&C

RUN: STALBAN TOWER PROP. EVENING

Receptor Data

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC 2	-50.0	-36.0	26.5
2. REC 3	50.0	-52.0	26.5
3. REC 6	50.0	36.0	26.5
4. REC 7	-50.0	52.0	26.5
5. REC 9	-50.0	-36.0	26.5
6. REC 10	-50.0	330.0	27.0
7. REC 11	82.0	425.0	26.5
8. REC 12	-15.0	588.0	32.4
9. REC 13	-90.0	588.0	26.4
10. REC 14	-226.0	496.0	31.3
11. REC 15	-354.0	496.0	27.0

Model Results

Remarks : In search of the wind direction corresponding
to the maximum concentration, only the first
direction, of the directions with the same maximum
concentrations, is indicated as the maximum.

	* MAXIMUM HOURLY CONCENTRATIONS WITH ANY AMBIENT BACKGROUND CONCENTRATIONS (BKG) ADDED (PPM)									
	* REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10
MAX+BKG	* .6	.6	.7	.8	.6	1.2	1.8	1.3	1.1	.7
- BKG	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MAX	* .6	.6	.7	.8	.6	1.2	1.8	1.3	1.1	.7
WIND DIR	* 12	5	355	12	12	26	328	168	138	107
JULIAN	* 7	137	192	7	7	110	154	22	158	154
HOUR	* 12	21	7	12	12	20	1	9	22	2

	* REC11
MAX+BKG	* .5
- BKG	* .0
MAX	* .5
WIND DIR	* 103
JULIAN	* 313
HOUR	* 13

THE HIGHEST CONCENTRATION OF 1.80 PPM OCCURRED AT RECEPTOR REC7 .

==========
Output Section
==========

NOTES PERTAINING TO THE REPORT

1. THE HIGHEST AVERAGE IN EACH OF THE FIRST TWO COLUMNS OF EACH TABLE BELOW ARE SUFFIXED BY AN ASTERISK (*). FOR PM OUTPUT, THERE IS ONLY ONE COLUMN AND ASTERISK FOR THE ANNUAL AVERAGE/PERIOD OF CONCERN TABLE.

2. THE NUMBERS IN PARENTHESES ARE THE JULIAN DAY AND ENDING HOUR FOR THE PRECEDING AVERAGE.

3. THE NUMBER OF CALM HOURS USED IN PRODUCING EACH AVERAGE ARE PREFIXED BY A C.

PRIMARY AVERAGES.

MAXIMUM 8-HOUR RUNNING NONOVERLAPPING AVERAGE CONCENTRATIONS
IN PARTS PER MILLION (PPM),
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Receptor Number	Highest Conc	Highest Ending Day Hr	Highest Calm	Second highest Conc	Second highest Ending Day Hr	Second highest Calm
1	.23	(273, 6)	C 0	.16	(83, 7)	C 1
2	.16	(273, 8)	C 0	.16	(273,24)	C 1
3	.25	(273, 8)	C 0	.23	(192, 7)	C 2
4	.35	(273, 6)	C 0	.26	(260, 6)	C 1
5	.23	(273, 6)	C 0	.16	(83, 7)	C 1
6	.80*	(262, 5)	C 2	.70*	(279, 7)	C 2
7	.70	(181, 6)	C 1	.69	(258, 9)	C 1
8	.60	(161, 4)	C 1	.55	(98, 5)	C 0
9	.62	(307, 1)	C 3	.57	(306, 8)	C 1
10	.30	(234, 5)	C 0	.28	(345, 5)	C 2
11	.21	(306, 8)	C 1	.21	(308, 8)	C 1

JOB: STALBAN TOWER PR PM W&C

RUN: STALBAN TOWER PROP. EVENING

FIVE HIGHEST 1-HOUR END-TO-END AVERAGE CONCENTRATIONS IN PARTS PER MILLION
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Rcptr No.	Highest Conc	Highest Ending Day Hr	Highest Calm	Second Highest Conc	Second Highest Ending Day Hr	Second Highest Calm	Third Highest Conc	Third Highest Ending Day Hr	Third Highest Calm	Fourth Highest Conc	Fourth Highest Ending Day Hr	Fourth Highest Calm	Fifth Highest Conc	Fifth Highest Ending Day Hr	Fifth Highest Calm
1	.60	(7,12)	C 0	.60	(50, 8)	C 0	.60	(137,21)	C 0	.60	(273, 5)	C 0	.60	(285, 3)	C 0
2	.60	(137,21)	C 0	.60	(194,10)	C 0	.60	(361, 6)	C 0	.50	(50, 8)	C 0	.50	(285, 3)	C 0
3	.70	(192, 7)	C 0	.70	(194,10)	C 0	.70	(238,20)	C 0	.60	(50, 8)	C 0	.60	(137,21)	C 0
4	.80	(7,12)	C 0	.80	(217,17)	C 0	.70	(50, 8)	C 0	.70	(273, 5)	C 0	.70	(285, 3)	C 0
5	.60	(7,12)	C 0	.60	(50, 8)	C 0	.60	(137,21)	C 0	.60	(273, 5)	C 0	.60	(285, 3)	C 0
6	1.20	(110,20)	C 0	1.20	(160, 4)	C 0	1.20	(89,22)	C 0	1.20	(279, 3)	C 0	1.10	(138, 3)	C 0
7	1.80*	(154, 1)	C 0	1.50*	(159,20)	C 0	1.30	(7,20)	C 0	1.30	(211,24)	C 0	1.30	(247, 1)	C 0
8	1.30	(22, 9)	C 0	1.30	(258, 8)	C 0	1.00	(18, 1)	C 0	1.00	(19, 1)	C 0	1.00	(32, 3)	C 0
9	1.10	(158,22)	C 0	1.10	(306,24)	C 0	1.00	(258, 8)	C 0	.90	(160,22)	C 0	.90	(288, 9)	C 0
10	.70	(154, 2)	C 0	.70	(160,22)	C 0	.70	(313,13)	C 0	.60	(107, 3)	C 0	.60	(306,24)	C 0
11	.50	(313,13)	C 0	.40	(154, 2)	C 0	.40	(160,22)	C 0	.40	(306,24)	C 0	.30	(48,24)	C 0

JOB: STALBAN TOWER PR PM W&C

RUN: STALBAN TOWER PROP. EVENING

CALM DURATION FREQUENCY

Hours of Consecutive Calm Winds	Frequency of Occurrence	(Julian day/hour ending) of Significant Occurrences
1	188	(7,13)(11, 5)(11,13)(21,24)(23,19)(29, 5)(31, 3)(31, 6)(34,24)(35, 6) (40,18)(42,23)(43, 5)(46, 2)(46,14)(48, 5)(54, 2)(54, 6)(56, 2)(59, 8) (62, 6)(62,23)(71,19)(72,23)(73, 4)(73, 8)(76, 8)(83, 4)(84,23)(85, 1) (105, 7)(110,18)(111,20)(125, 5)(126, 2)(126, 4)(132,21)(136, 8)(137, 4)(137, 6) (143,21)(144, 1)(154, 4)(154, 6)(156, 6)(158, 1)(160,24)(164, 1)(169, 6)(174, 4) (174,20)(175,21)(179, 6)(180, 5)(180,24)(182, 3)(182, 6)(184, 1)(188, 7)(188,24) (190, 2)(190,24)(191, 4)(191, 6)(192, 1)(192, 6)(193, 3)(193,23)(195,24)(198, 8) (199,20)(201,21)(201,24)(202, 2)(202, 5)(202,23)(203, 6)(204, 2)(204, 5)(204, 7) (205,22)(205,24)(206, 2)(206, 4)(210, 5)(212, 2)(214, 9)(214,21)(214,23)(215, 2) (215, 4)(215,21)(228,23)(230, 3)(233, 4)(238, 5)(239,22)(240, 2)(242, 3)(242,21) (242,23)(243, 1)(243,23)(244, 2)(244, 5)(246,22)(246,24)(247, 7)(248, 5)(250,22) (253,21)(255, 1)(257,24)(258, 3)(259,24)(260,21)(261, 1)(261, 6)(261, 8)(261,21) (261,24)(262, 3)(262, 7)(263, 1)(263, 3)(266, 4)(267, 3)(270, 1)(270, 5)(271,21) (273,14)(273,20)(276, 8)(277, 1)(280,23)(285, 8)(285,19)(288,19)(288,22)(289, 7) (289,18)(289,20)(289,24)(291,18)(292, 4)(292, 8)(294, 6)(297,23)(299, 4)(300, 6) (300, 8)(301, 4)(301, 7)(301,19)(302, 5)(306, 7)(306,15)(306,20)(307, 2)(308, 7) (308,22)(309,17)(311,19)(311,21)(312,18)(312,21)(314, 5)(315, 1)(319,11)(319,21) (320,20)(324,15)(329, 4)(329, 6)(336, 8)(338,21)(338,23)(339,11)(344,19)(344,21) (346, 8)(347, 5)(347,16)(356,19)(356,21)(357, 1)(357,23)(363,19)
2	55	(23,24)(24, 3)(29, 8)(36,18)(43, 3)(46, 6)(48,22)(49, 3)(102, 3)(111,24) (125,23)(136, 6)(139, 2)(139, 6)(156, 3)(157,21)(174,23)(193, 1)(196, 4)(198, 6) (198,23)(200,23)(203, 2)(203,22)(205, 1)(205, 5)(205, 8)(208,23)(222,24)(242, 6) (247, 3)(249,24)(250, 3)(250, 6)(250, 9)(261, 4)(262,20)(262,23)(272, 1)(279, 5) (281, 7)(286, 7)(288, 8)(289, 1)(299, 2)(301,23)(302, 2)(302,23)(306,23)(328,22) (329, 9)(344,24)(355,24)(356, 8)(361,10)
3	27	(18,23)(45,24)(49, 7)(53, 7)(102, 7)(107, 2)(144, 6)(160, 7)(180,22)(183, 2) (193, 7)(194, 3)(199,24)(202,21)(209, 4)(218, 3)(228, 7)(230, 7)(243, 6)(280, 5) (281, 3)(289, 5)(301, 2)(312, 7)(320, 4)(329,19)(356, 4)
4	12	(87,24)(170, 2)(198, 3)(209,24)(233, 1)(248, 1)(254,23)(269,23)(280, 1)(300,22) (312, 3)(320, 9)
5	12	(142,24)(143, 6)(147, 2)(169, 4)(178, 7)(188, 4)(189, 6)(228, 3)(254, 6)(286,23) (295, 1)(307, 8)
6	6	(59, 6)(199, 6)(238, 2)(259, 3)(288, 5)(298, 6)

```
          7               3         (229, 7)(286, 3)(310, 2)
          9               2         (220, 6)(252, 5)
         10               3         (253, 7)(305, 9)(309, 9)

Program terminated normally
```

(WISCONSIN AVE. & GARFIELD ST., NW)

JOB: STALBAN TOWER EX AM W&G

RUN: STALBAN TOWER EXIST MORNING

FIVE HIGHEST 1-HOUR END-TO-END AVERAGE CONCENTRATIONS IN PARTS PER MILLION
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Rcptr	Highest Ending			Second Highest Ending			Third Highest Ending			Fourth Highest Ending			Fifth Highest Ending		
No.	Conc	Day Hr	Calm	Conc	Day Hr	Calm	Conc	Day Hr	Calm	Conc	Day Hr	Calm	Conc	Day Hr	Calm
1	1.80*	(306,24)	C 0	1.30	(48,24)	C 0	1.30	(319,24)	C 0	1.20	(48,23)	C 0	1.20	(102, 8)	C 0
2	1.50	(158,22)	C 0	1.30	(107, 3)	C 0	1.20	(7,12)	C 0	1.20	(154, 2)	C 0	1.20	(258, 8)	C 0
3	1.40	(159,20)	C 0	1.30	(154, 1)	C 0	1.10	(106, 4)	C 0	1.10	(107, 5)	C 0	1.10	(107, 7)	C 0
4	1.20	(237, 5)	C 0	1.20	(260,24)	C 0	1.20	(308,21)	C 0	1.10	(23,20)	C 0	1.10	(27,20)	C 0
5	1.20	(133,21)	C 0	1.20	(297, 3)	C 0	1.10	(45,20)	C 0	1.10	(92, 8)	C 0	1.10	(177, 6)	C 0
6	1.50	(43, 7)	C 0	1.50	(43,10)	C 0	1.50	(48, 7)	C 0	1.50	(180,23)	C 0	1.50	(185, 1)	C 0
7	1.60	(22, 9)	C 0	1.60*	(258, 8)	C 0	1.30	(158,22)	C 0	1.10	(18, 1)	C 0	1.10	(19, 1)	C 0
8	1.50	(154, 2)	C 0	1.50	(107, 3)	C 0	1.30	(313,13)	C 0	1.20	(158,22)	C 0	1.10	(160,22)	C 0
9	1.50	(158,22)	C 0	1.30	(107, 3)	C 0	1.20	(7,12)	C 0	1.20	(154, 2)	C 0	1.20	(258, 8)	C 0
10	1.50	(22, 9)	C 0	1.20	(48,18)	C 0	1.20	(128, 7)	C 0	1.20	(169,20)	C 0	1.20	(188, 8)	C 0
11	.80	(48, 7)	C 0	.80	(98, 1)	C 0	.80	(146,21)	C 0	.80	(158,20)	C 0	.80	(185, 1)	C 0
12	.60	(7,21)	C 0	.60	(22, 9)	C 0	.60	(24, 1)	C 0	.60	(48, 6)	C 0	.60	(98, 4)	C 0

JOB: STALBAN TOWER EX AM W&G

RUN: STALBAN TOWER EXIST MORNING

CALM DURATION FREQUENCY

Hours of Consecutive Calm Winds	Frequency of Occurrence	(Julian day/hour ending) of Significant Occurrences
1	188	(7,13)(11, 5)(11,13)(21,24)(23,19)(29, 5)(31, 3)(31, 6)(34,24)(35, 6) (40,18)(42,23)(43, 5)(46, 2)(46,14)(48, 5)(54, 2)(54, 6)(56, 2)(59, 8) (62, 6)(62,23)(71,19)(72,23)(73, 4)(73, 8)(76, 8)(83, 4)(84,23)(85, 1) (105, 7)(110,18)(111,20)(125, 5)(126, 2)(126, 4)(132,21)(136, 8)(137, 4)(137, 6) (143,21)(144, 1)(154, 4)(154, 6)(156, 6)(158, 1)(160,24)(164, 1)(169, 6)(174, 4) (174,20)(175,21)(179, 6)(180, 5)(180,24)(182, 3)(182, 6)(184, 1)(188, 7)(188,24) (190, 2)(190,24)(191, 4)(191, 6)(192, 1)(192, 6)(193, 3)(193,23)(195,24)(198, 8) (199,20)(201,21)(201,24)(202, 2)(202, 5)(202,23)(203, 6)(204, 2)(204, 5)(204, 7) (205,22)(205,24)(206, 2)(206, 4)(210, 5)(212, 2)(214, 9)(214,21)(214,23)(215, 2) (215, 4)(215,21)(228,23)(230, 3)(233, 4)(238, 5)(239,22)(240, 2)(242, 3)(242,21) (242,23)(243, 1)(243,23)(244, 2)(244, 5)(246,22)(246,24)(247, 7)(248, 5)(250,22) (253,21)(255, 1)(257,24)(258, 3)(259,24)(260,21)(261, 1)(261, 6)(261, 8)(261,21) (261,24)(262, 3)(262, 7)(263, 1)(263, 3)(266, 4)(267, 3)(270, 1)(270, 5)(271,21) (273,14)(273,20)(276, 8)(277, 1)(280,23)(285, 8)(285,19)(288,19)(288,22)(289, 7) (289,18)(289,20)(289,24)(291,18)(292, 4)(292, 8)(294, 6)(297,23)(299, 4)(300, 6) (300, 8)(301, 4)(301, 7)(301,19)(302, 5)(306, 7)(306,15)(306,20)(307, 2)(308, 7) (308,22)(309,17)(311,19)(311,21)(312,18)(312,21)(314, 5)(315, 1)(319,11)(319,21) (320,20)(324,15)(329, 4)(329, 6)(336, 8)(338,21)(338,23)(339,11)(344,19)(344,21) (346, 8)(347, 5)(347,16)(356,19)(356,21)(357, 1)(357,23)(363,19)
2	55	(23,24)(24, 3)(29, 8)(36,18)(43, 3)(46, 6)(48,22)(49, 3)(102, 3)(111,24) (125,23)(136, 6)(139, 2)(139, 6)(156, 3)(157,21)(174,23)(193, 1)(196, 4)(198, 6) (198,23)(200,23)(203, 2)(203,22)(205, 1)(205, 5)(205, 8)(208,23)(222,24)(242, 6) (247, 3)(249,24)(250, 3)(250, 6)(250, 9)(261, 4)(262,20)(262,23)(272, 1)(279, 5) (281, 7)(286, 7)(288, 8)(289, 1)(299, 2)(301,23)(302, 2)(302,23)(306,23)(328,22) (329, 9)(344,24)(355,24)(356, 8)(361,10)
3	27	(18,23)(45,24)(49, 7)(53, 7)(102, 7)(107, 2)(144, 6)(160, 7)(180,22)(183, 2) (193, 7)(194, 3)(199,24)(202,21)(209, 4)(218, 3)(228, 7)(230, 7)(243, 6)(280, 5) (281, 3)(289, 5)(301, 2)(312, 7)(320, 4)(329,19)(356, 4)
4	12	(87,24)(170, 2)(198, 3)(209,24)(233, 1)(248, 1)(254,23)(269,23)(280, 1)(300,22) (312, 3)(320, 9)
5	12	(142,24)(143, 6)(147, 2)(169, 4)(178, 7)(188, 4)(189, 6)(228, 3)(254, 6)(286,23) (295, 1)(307, 8)
6	6	(59, 6)(199, 6)(238, 2)(259, 3)(288, 5)(298, 6)

```
          7               3         (229, 7)(286, 3)(310, 2)
          9               2         (220, 6)(252, 5)
         10               3         (253, 7)(305, 9)(309, 9)

Program terminated normally
```

```
'STALBAN TOWER EX PM W&G'   60.   175.   0.   0.  12  0.3048   1
1 1 01 12 31 01
99999   64   99999   64
0  0  'U'
'REC 1'     -354.     -36.   6.0
'REC 2'      -50.     -36.   26.5
'REC 3'       50.     -52.   26.5
'REC 4'      310.     -52.   7.0
'REC 5'      258.      36.   7.2
'REC 6'       50.      36.   26.5
'REC 7'      -50.      52.   26.5
'REC 8'     -354.      52.   6.0
'REC 9'      -50.     -36.   26.5
'REC 10'     -50.     330.   27.0
'REC 11'      82.     425.   26.5
'REC 12'     -15.     588.   32.4
1  'C'
1 1 1 1 1 1 1
'STALBAN TOWER EXIST EVENING'   12
1  1
'W&G  NB APPR    '   'AG'       17.   -538.    17.     -38.  0.   50.
2  2
'W&G  NB QUEUE   '   'AG'       17.    -38.    17.    -538.  0.   30.0   3
3  1
'W&G  NB DEP     '   'AG'       17.    -38.    17.     303.  0.   50.
4  1
'W&G SB APPR     '   'AG'        4.    435.   -17.      38.  0.   55.
5  2
'W&G SB QUEUE    '   'AG'      -17.     38.     4.     435.  0.   35.0   3
6  1
'W&G SB DEP      '   'AG'      -17.     38.    17.    -538.  0.   55.
7  1
'W&G WB APPR     '   'AG'      440.     29.    34.       7.  0.   35.
8  2
'W&G WB QUEUE    '   'AG'       34.      7.   440.      29.  0.   15.0   1
9  1
'W&G WB DEP      '   'AG'       34.      7.  -364.      23.  0.   35.
10 1
'W&G EB APPR     '   'AG'     -424.      7.   -34.      -7.  0.   35.
11 2
'W&G EB QUEUE    '   'AG'      -34.     -7.  -424.      -7.  0.   15.0   1
12 1
'W&G EB DEP      '   'AG'      -34.     -7.   314.     -23.  0.   35.
01   0.0
1      1059.   11.18
2       90     65     1.0     860   206.96    0  0  3
3       978.   11.18
4      1014.   11.18
5       90     44     1.0    1625   206.96    0  0  4
6       942.   11.18
7       273.   21.47
8       90     67     1.0     156   206.96    0  0  2
9       145.   21.47
10      106.   28.02
11      90     67     1.0     106   206.96    0  0  3
12      389.   28.02
```

JOB: STALBAN TOWER EX PM W&G

RUN: STALBAN TOWER EXIST EVENING

==========
General Information
==========

Run start date: 1/ 1/ 1 Julian: 1
end date: 12/31/ 1 Julian: 365

A Tier 1 approach was used for input data preparation.

The MODE flag has been set to C for calculating CO averages.

Ambient background concentrations are excluded from the averages below.

Site & Meteorological Constants

VS = .0 CM/S VD = .0 CM/S Z0 = 175. CM ATIM = 60.

[illegible] 64
[illegible] 64

Urban mixing heights were processed.

In 2001, Julian day 1 is a Monday.

Link Data Constants - (Variable data in *.LNK file)

	LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	*	LENGTH (FT)	BRG (DEG)	TYPE	H (FT)	W (FT)	NLANES
1.	W&G NB APPR	*	17.0	-538.0	17.0	-38.0	*	500.	360.	AG	.0	50.0	
2.	W&G NB QUEUE	*	17.0	-38.0	17.0	-538.0	*	500.	180.	AG	.0	30.0	3
3.	W&G NB DEP	*	17.0	-38.0	17.0	303.0	*	341.	360.	AG	.0	50.0	
4.	W&G SB APPR	*	4.0	435.0	-17.0	38.0	*	398.	183.	AG	.0	55.0	
5.	W&G SB QUEUE	*	-17.0	38.0	4.0	435.0	*	398.	3.	AG	.0	35.0	3
6.	W&G SB DEP	*	-17.0	38.0	17.0	-538.0	*	577.	177.	AG	.0	55.0	
7.	W&G WB APPR	*	440.0	29.0	34.0	7.0	*	407.	267.	AG	.0	35.0	
8.	W&G WB QUEUE	*	34.0	7.0	440.0	29.0	*	407.	87.	AG	.0	15.0	1
9.	W&G WB DEP	*	34.0	7.0	-364.0	23.0	*	398.	272.	AG	.0	35.0	
10.	W&G EB APPR	*	-424.0	7.0	-34.0	-7.0	*	390.	92.	AG	.0	35.0	
11.	W&G EB QUEUE	*	-34.0	-7.0	-424.0	-7.0	*	390.	270.	AG	.0	15.0	1
12.	W&G EB DEP	*	-34.0	-7.0	314.0	-23.0	*	348.	93.	AG	.0	35.0	

JOB: STALBAN TOWER EX PM W&G

RUN: STALBAN TOWER EXIST EVENING

Receptor Data

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC 1	-354.0	-36.0	6.0
2. REC 2	-50.0	-36.0	26.5
3. REC 3	50.0	-52.0	26.5
4. REC 4	310.0	-52.0	7.0
5. REC 5	258.0	36.0	7.2
6. REC 6	50.0	36.0	26.5
7. REC 7	-50.0	52.0	26.5
8. REC 8	-354.0	52.0	6.0
9. REC 9	-50.0	-36.0	26.5
10. REC 10	-50.0	330.0	27.0
11. REC 11	82.0	425.0	26.5
12. REC 12	-15.0	588.0	32.4

Model Results

Remarks : In search of the wind direction corresponding
to the maximum concentration, only the first
direction, of the directions with the same maximum
concentrations, is indicated as the maximum.

* MAXIMUM HOURLY CONCENTRATIONS WITH ANY AMBIENT BACKGROUND CONCENTRATIONS (BKG) ADDED

* (PPM)

	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10
MAX+BKG	.6	1.4	1.3	.8	.9	1.3	1.4	.8	1.4	1.2
- BKG	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MAX	.6	1.4	1.3	.8	.9	1.3	1.4	.8	1.4	1.2
WIND DIR	80	138	228	293	247	193	151	107	138	168
JULIAN	306	158	159	192	300	43	258	154	158	22
HOUR	24	22	20	23	4	7	8	2	22	9

	REC11	REC12
MAX+BKG	.6	.4
BKG	.0	.0
MAX	.6	.4
WIND DIR	188	178
JULIAN	139	7
HOUR	23	21

JOB: STALBAN TOWER EX PM W&G

RUN: STALBAN TOWER EXIST EVENING

THE HIGHEST CONCENTRATION OF 1.40 PPM OCCURRED AT RECEPTOR REC2 .

JOB: STALBAN TOWER EX PM W&G

RUN: STALBAN TOWER EXIST EVENING

==========
Output Section
==========

NOTES PERTAINING TO THE REPORT

1. THE HIGHEST AVERAGE IN EACH OF THE FIRST TWO COLUMNS OF EACH TABLE BELOW ARE SUFFIXED BY AN ASTERISK (*). FOR PM OUTPUT, THERE IS ONLY ONE COLUMN AND ASTERISK FOR THE ANNUAL AVERAGE/PERIOD OF CONCERN TABLE.

2. THE NUMBERS IN PARENTHESES ARE THE JULIAN DAY AND ENDING HOUR FOR THE PRECEDING AVERAGE.

3. THE NUMBER OF CALM HOURS USED IN PRODUCING EACH AVERAGE ARE PREFIXED BY A C.

PRIMARY AVERAGES.

MAXIMUM 8-HOUR RUNNING NONOVERLAPPING AVERAGE CONCENTRATIONS
IN PARTS PER MILLION (PPM),
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Receptor Number	Highest Conc	Highest Ending Day Hr	Highest Calm	Second highest Conc	Second highest Ending Day Hr	Second highest Calm
1	.20	(306,24)	C 3	.20	(262, 6)	C 2
2	.75	(270, 7)	C 2	.70*	(175, 4)	C 2
3	.65	(181, 5)	C 2	.61	(347,10)	C 1
4	.37	(311,23)	C 2	.33	(35, 4)	C 1
5	.53	(181, 5)	C 2	.49	(182, 5)	C 1
6	.75*	(43,10)	C 2	.67	(125,24)	C 2
7	.70	(161, 4)	C 1	.61	(110,21)	C 1
8	.25	(107, 6)	C 3	.23	(329,10)	C 4
9	.75	(270, 7)	C 2	.70	(175, 4)	C 2
10	.50	(295, 7)	C 2	.50	(161, 6)	C 1
11	.27	(315, 1)	C 1	.27	(347,10)	C 1
12	.23	(248, 6)	C 4	.21	(347,23)	C 1

JOB: STALBAN TOWER EX PM W&G

RUN: STALBAN TOWER EXIST EVENING

FIVE HIGHEST 1-HOUR END-TO-END AVERAGE CONCENTRATIONS IN PARTS PER MILLION
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Rcptr No.	Highest Conc	Highest Ending Day Hr	Calm	Second Highest Conc	Second Highest Ending Day Hr	Calm	Third Highest Conc	Third Highest Ending Day Hr	Calm	Fourth Highest Conc	Fourth Highest Ending Day Hr	Calm	Fifth Highest Conc	Fifth Highest Ending Day Hr	Calm
1	.60	(306,24)	C 0	.50	(313,13)	C 0	.40	(154, 2)	C 0	.40	(160,22)	C 0	.30	(46, 4)	C 0
2	1.40*	(158,22)	C 0	1.30*	(107, 3)	C 0	1.10	(7,12)	C 0	1.10	(258, 8)	C 0	1.10	(329,10)	C 0
3	1.30	(159,20)	C 0	1.20	(154, 1)	C 0	1.00	(35, 7)	C 0	1.00	(35, 8)	C 0	1.00	(54, 8)	C 0
4	.80	(192,23)	C 0	.80	(237, 5)	C 0	.80	(260,24)	C 0	.80	(308,21)	C 0	.70	(23,20)	C 0
5	.90	(300, 4)	C 0	.90	(27, 7)	C 0	.90	(128, 5)	C 0	.90	(155, 5)	C 0	.90	(156, 5)	C 0
6	1.30	(43, 7)	C 0	1.30	(43,10)	C 0	1.30	(48, 7)	C 0	1.30	(180,23)	C 0	1.30	(185, 1)	C 0
7	1.40	(258, 8)	C 0	1.30	(22, 9)	C 0	1.00	(47, 1)	C 0	1.00	(97,22)	C 0	1.00	(97,23)	C 0
8	.80	(154, 2)	C 0	.70	(107, 3)	C 0	.70	(313,13)	C 0	.50	(160,22)	C 0	.50	(306,24)	C 0
9	1.40	(158,22)	C 0	1.30	(107, 3)	C 0	1.10	(7,12)	C 0	1.10	(258, 8)	C 0	1.10	(329,10)	C 0
10	1.00	(22, 9)	C 0	1.00	(48,18)	C 0	1.00	(128, 7)	C 0	1.00	(169,20)	C 0	1.00	(188, 8)	C 0
11	.60	(159,21)	C 0	.60	(301,20)	C 0	.50	(11, 4)	C 0	.50	(18,20)	C 0	.50	(43, 7)	C 0
12	.40	(7,21)	C 0	.40	(22, 9)	C 0	.40	(24, 1)	C 0	.40	(48, 6)	C 0	.40	(98, 4)	C 0

JOB: STALBAN TOWER EX PM W&G

RUN: STALBAN TOWER EXIST EVENING

CALM DURATION FREQUENCY

Hours of Consecutive Calm Winds	Frequency of Occurrence	(Julian day/hour ending) of Significant Occurrences
1	188	(7,13)(11, 5)(11,13)(21,24)(23,19)(29, 5)(31, 3)(31, 6)(34,24)(35, 6) (40,18)(42,23)(43, 5)(46, 2)(46,14)(48, 5)(54, 2)(54, 6)(56, 2)(59, 8) (62, 6)(62,23)(71,19)(72,23)(73, 4)(73, 8)(76, 8)(83, 4)(84,23)(85, 1) (105, 7)(110,18)(111,20)(125, 5)(126, 2)(126, 4)(132,21)(136, 8)(137, 4)(137, 6) (143,21)(144, 1)(154, 4)(154, 6)(156, 6)(158, 1)(160,24)(164, 1)(169, 6)(174, 4) (174,20)(175,21)(179, 6)(180, 5)(180,24)(182, 3)(182, 6)(184, 1)(188, 7)(188,24) (190, 2)(190,24)(191, 4)(191, 6)(192, 1)(192, 6)(193, 3)(193,23)(195,24)(198, 8) (199,20)(201,21)(201,24)(202, 2)(202, 5)(202,23)(203, 6)(204, 2)(204, 5)(204, 7) (205,22)(205,24)(206, 2)(206, 4)(210, 5)(212, 2)(214, 9)(214,21)(214,23)(215, 2) (215, 4)(215,21)(228,23)(230, 3)(233, 4)(238, 5)(239,22)(240, 2)(242, 3)(242,21) (242,23)(243, 1)(243,23)(244, 2)(244, 5)(246,22)(246,24)(247, 7)(248, 5)(250,22) (253,21)(255, 1)(257,24)(258, 3)(259,24)(260,21)(261, 1)(261, 6)(261, 8)(261,21) (261,24)(262, 3)(262, 7)(263, 1)(263, 3)(266, 4)(267, 3)(270, 1)(270, 5)(271,21) (273,14)(273,20)(276, 8)(277, 1)(280,23)(285, 8)(285,19)(288,19)(288,22)(289, 7) (289,18)(289,20)(289,24)(291,18)(292, 4)(292, 8)(294, 6)(297,23)(299, 4)(300, 6) (300, 8)(301, 4)(301, 7)(301,19)(302, 5)(306, 7)(306,15)(306,20)(307, 2)(308, 7) (308,22)(309,17)(311,19)(311,21)(312,18)(312,21)(314, 5)(315, 1)(319,11)(319,21) (320,20)(324,15)(329, 4)(329, 6)(336, 8)(338,21)(338,23)(339,11)(344,19)(344,21) (346, 8)(347, 5)(347,16)(356,19)(356,21)(357, 1)(357,23)(363,19)
2	55	(23,24)(24, 3)(29, 8)(36,18)(43, 3)(46, 6)(48,22)(49, 3)(102, 3)(111,24) (125,23)(136, 6)(139, 2)(139, 6)(156, 3)(157,21)(174,23)(193, 1)(196, 4)(198, 6) (198,23)(200,23)(203, 2)(203,22)(205, 1)(205, 5)(205, 8)(208,23)(222,24)(242, 6) (247, 3)(249,24)(250, 3)(250, 6)(250, 9)(261, 4)(262,20)(262,23)(272, 1)(279, 5) (281, 7)(286, 7)(288, 8)(289, 1)(299, 2)(301,23)(302, 2)(302,23)(306,23)(328,22) (329, 9)(344,24)(355,24)(356, 8)(361,10)
3	27	(18,23)(45,24)(49, 7)(53, 7)(102, 7)(107, 2)(144, 6)(160, 7)(180,22)(183, 2) (193, 7)(194, 3)(199,24)(202,21)(209, 4)(218, 3)(228, 7)(230, 7)(243, 6)(280, 5) (281, 3)(289, 5)(301, 2)(312, 7)(320, 4)(329,19)(356, 4)
4	12	(87,24)(170, 2)(198, 3)(209,24)(233, 1)(248, 1)(254,23)(269,23)(280, 1)(300,22) (312, 3)(320, 9)
5	12	(142,24)(143, 6)(147, 2)(169, 4)(178, 7)(188, 4)(189, 6)(228, 3)(254, 6)(286,23) (295, 1)(307, 8)
6	6	(59, 6)(199, 6)(238, 2)(259, 3)(288, 5)(298, 6)

```
          7               3         (229, 7)(286, 3)(310, 2)
          9               2         (220, 6)(252, 5)
         10               3         (253, 7)(305, 9)(309, 9)

Program terminated normally
```

```
'STALBAN TOWER PR AM W&G'   60.   175.   0.   0.  12  0.3048   1
1 1 01 12 31 01
99999   64   99999   64
0  0  'U'
'REC 1'    -354.     -36.   6.0
'REC 2'     -50.     -36.   26.5
'REC 3'      50.     -52.   26.5
'REC 4'     310.     -52.   7.0
'REC 5'     258.      36.   7.2
'REC 6'      50.      36.   26.5
'REC 7'     -50.      52.   26.5
'REC 8'    -354.      52.   6.0
'REC 9'     -50.     -36.   26.5
'REC 10'    -50.     330.   27.0
'REC 11'     82.     425.   26.5
'REC 12'    -15.     588.   32.4
1  'C'
1 1 1 1 1 1 1
'STALBAN TOWER PROP. MORNING'   12
1  1
'W&G  NB APPR   '   'AG'       17.   -538.    17.     -38.  0.   50.
2  2
'W&G  NB QUEUE  '   'AG'       17.    -38.    17.    -538.  0.   30.0   3
3  1
'W&G  NB DEP    '   'AG'       17.    -38.    17.     303.  0.   50.
4  1
'W&G SB APPR    '   'AG'        4.    435.   -17.      38.  0.   55.
5  2
'W&G SB QUEUE   '   'AG'      -17.     38.     4.     435.  0.   35.0   3
6  1
'W&G SB DEP     '   'AG'      -17.     38.    17.    -538.  0.   55.
7  1
'W&G WB APPR    '   'AG'      440.     29.    34.       7.  0.   35.
8  2
'W&G WB QUEUE   '   'AG'       34.      7.   440.      29.  0.   15.0   1
9  1
'W&G WB DEP     '   'AG'       34.      7.  -364.      23.  0.   35.
10 1
'W&G EB APPR    '   'AG'     -424.      7.   -34.      -7.  0.   35.
11 2
'W&G EB QUEUE   '   'AG'      -34.     -7.  -424.      -7.  0.   15.0    1
12 1
'W&G EB DEP     '   'AG'      -34.     -7.   314.     -23.  0.   35.
01   0.0
1      860.   11.18
2       90     71     1.0     860   206.96    0  0  3
3      795.   11.18
4     1631.   11.18
5       90     46     1.0    1631   206.96    0  0  4
6     1160.   11.18
7      163.   21.47
8       90     65     1.0     163   206.96    0  0  2
9       69.   21.47
10     460.   21.47
11      90     65     1.0     460   206.96    0  0  3
12    1080.   28.02
```

JOB: STALBAN TOWER PR AM W&G

RUN: STALBAN TOWER PROP. MORNING

==========
General Information
==========

Run start date: 1/ 1/ 1 Julian: 1
end date: 12/31/ 1 Julian: 365

A Tier 1 approach was used for input data preparation.

The MODE flag has been set to C for calculating CO averages.

Ambient background concentrations are excluded from the averages below.

Site & Meteorological Constants

VS = .0 CM/S VD = .0 CM/S Z0 = 175. CM ATIM = 60.

Met. Sfc. Sta. Id & Yr = 99999 64
Upper Air Sta. Id & Yr = 99999 64

Urban mixing heights were processed.

In 2001, Julian day 1 is a Monday.

Link Data Constants - (Variable data in *.LNK file)

	LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	H (FT)	W (FT)	NLANES
1.	W&G NB APPR	17.0	-538.0	17.0	-38.0	500.	360.	AG	.0	50.0	
2.	W&G NB QUEUE	17.0	-38.0	17.0	-538.0	500.	180.	AG	.0	30.0	3
3.	W&G NB DEP	17.0	-38.0	17.0	303.0	341.	360.	AG	.0	50.0	
4.	W&G SB APPR	4.0	435.0	-17.0	38.0	398.	183.	AG	.0	55.0	
5.	W&G SB QUEUE	-17.0	38.0	4.0	435.0	398.	3.	AG	.0	35.0	3
6.	W&G SB DEP	-17.0	38.0	17.0	-538.0	577.	177.	AG	.0	55.0	
7.	W&G WB APPR	440.0	29.0	34.0	7.0	407.	267.	AG	.0	35.0	
8.	W&G WB QUEUE	34.0	7.0	440.0	29.0	407.	87.	AG	.0	15.0	1
9.	W&G WB DEP	34.0	7.0	-364.0	23.0	398.	272.	AG	.0	35.0	
10.	W&G EB APPR	-424.0	7.0	-34.0	-7.0	390.	92.	AG	.0	35.0	
11.	W&G EB QUEUE	-34.0	-7.0	-424.0	-7.0	390.	270.	AG	.0	15.0	1
12.	W&G EB DEP	-34.0	-7.0	314.0	-23.0	348.	93.	AG	.0	35.0	

Receptor Data

RECEPTOR	*	COORDINATES (FT) X	Y	Z
1. REC 1	*	-354.0	-36.0	6.0
2. REC 2	*	-50.0	-36.0	26.5
3. REC 3	*	50.0	-52.0	26.5
4. REC 4	*	310.0	-52.0	7.0
5. REC 5	*	258.0	36.0	7.2
6. REC 6	*	50.0	36.0	26.5
7. REC 7	*	-50.0	52.0	26.5
8. REC 8	*	-354.0	52.0	6.0
9. REC 9	*	50.0	-36.0	26.5
[illegible]	*	50.0	330.0	27.0
[illegible]	*	82.0	425.0	26.5
[illegible]	*	-15.0	588.0	32.4

Model Results

Remarks : In search of the wind direction corresponding
to the maximum concentration, only the first
direction, of the directions with the same maximum
concentrations, is indicated as the maximum.

* MAXIMUM HOURLY CONCENTRATIONS WITH ANY AMBIENT BACKGROUND CONCENTRATIONS (BKG) ADDED

* (PPM)

	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10
MAX+BKG	1.6	2.0	1.7	1.3	1.6	1.9	2.0	1.6	2.0	1.7
- BKG	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MAX	1.6	2.0	1.7	1.3	1.6	1.9	2.0	1.6	2.0	1.7
WIND DIR	80	151	195	291	228	193	168	116	151	168
JULIAN	306	258	48	23	159	43	22	107	258	22
HOUR	24	8	7	20	20	7	9	3	8	9

	REC11	REC12
MAX+BKG	.9	.7
- BKG	.0	.0
MAX	.9	.7
WIND DIR	196	168
JULIAN	158	22
HOUR	20	9

THE HIGHEST CONCENTRATION OF 2.00 PPM OCCURRED AT RECEPTOR REC7 .

JOB: STALBAN TOWER PR AM W&G

RUN: STALBAN TOWER PROP. MORNING

==========
Output Section
==========

NOTES PERTAINING TO THE REPORT

1. THE HIGHEST AVERAGE IN EACH OF THE FIRST TWO COLUMNS OF EACH TABLE BELOW ARE SUFFIXED BY AN ASTERISK (*). FOR PM OUTPUT, THERE IS ONLY ONE COLUMN AND ASTERISK FOR THE ANNUAL AVERAGE/PERIOD OF CONCERN TABLE.

2. THE NUMBERS IN PARENTHESES ARE THE JULIAN DAY AND ENDING HOUR FOR THE PRECEDING AVERAGE.

3. THE NUMBER OF CALM HOURS USED IN PRODUCING EACH AVERAGE ARE PREFIXED BY A C.

PRIMARY AVERAGES.

MAXIMUM 8 HOUR RUNNING NONOVERLAPPING AVERAGE CONCENTRATIONS
IN PARTS PER MILLION (PPM),
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Receptor Number	Highest Conc	Highest Ending Day Hr	Highest Calm	Second highest Conc	Second highest Ending Day Hr	Second highest Calm
1	.95	(262, 6)	C 2	.85	(345, 6)	C 2
2	1.01	(161, 4)	C 1	.97	(270, 7)	C 2
3	.97	(347,10)	C 1	.92	(183, 3)	C 3
4	.77	(311,23)	C 2	.73	(29, 7)	C 2
5	.87	(181, 6)	C 1	.76	(313,24)	C 0
6	1.07*	(43,10)	C 2	1.01*	(315, 1)	C 1
7	1.03	(161, 4)	C 1	.92	(98, 5)	C 0
8	.75	(329, 7)	C 2	.73	(330, 2)	C 1
9	1.01	(161, 4)	C 1	.97	(270, 7)	C 2
10	.71	(161, 6)	C 1	.63	(248, 7)	C 3
11	.40	(43,10)	C 2	.37	(302, 3)	C 4
12	.28	(248, 6)	C 4	.27	(328, 3)	C 0

JOB: STALBAN TOWER PR AM W&G

RUN: STALBAN TOWER PROP. MORNING

FIVE HIGHEST 1-HOUR END-TO-END AVERAGE CONCENTRATIONS IN PARTS PER MILLION
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Rcptr	Highest Ending			Second Highest Ending			Third Highest Ending			Fourth Highest Ending			Fifth Highest Ending		
No.	Conc	Day Hr	Calm	Conc	Day Hr	Calm	Conc	Day Hr	Calm	Conc	Day Hr	Calm	Conc	Day Hr	Calm
1	1.60	(306,24)	C 0	1.30	(48,23)	C 0	1.30	(48,24)	C 0	1.30	(319,24)	C 0	1.20	(24, 4)	C 0
2	2.00*	(258, 8)	C 0	1.80	(158,22)	C 0	1.40	(97,22)	C 0	1.40	(107, 3)	C 0	1.40	(110,15)	C 0
3	1.70	(48, 7)	C 0	1.70	(84,22)	C 0	1.70	(98, 1)	C 0	1.70	(107, 5)	C 0	1.70	(146,21)	C 0
4	1.30	(23,20)	C 0	1.30	(155, 3)	C 0	1.30	(177, 5)	C 0	1.30	(182, 2)	C 0	1.30	(195,22)	C 0
5	1.60	(159,20)	C 0	1.20	(27, 7)	C 0	1.20	(48, 4)	C 0	1.20	(76, 7)	C 0	1.20	(128, 5)	C 0
6	1.90	(43, 7)	C 0	1.90	(43,10)	C 0	1.80	(48, 7)	C 0	1.80	(158,20)	C 0	1.80	(180,23)	C 0
7	2.00	(22, 9)	C 0	2.00*	(258, 8)	C 0	1.50	(18, 1)	C 0	1.50	(19, 1)	C 0	1.50	(47, 1)	C 0
8	1.60	(107, 3)	C 0	1.50	(154, 2)	C 0	1.50	(313,13)	C 0	1.30	(160,22)	C 0	1.20	(158,22)	C 0
9	2.00	(258, 8)	C 0	1.80	(158,22)	C 0	1.40	(97,22)	C 0	1.40	(107, 3)	C 0	1.40	(110,15)	C 0
10	1.70	(22, 9)	C 0	1.30	(24, 1)	C 0	1.30	(98, 4)	C 0	1.30	(136,21)	C 0	1.30	(233, 5)	C 0
11	.90	(158,20)	C 0	.90	(271,23)	C 0	.80	(22, 5)	C 0	.80	(23,18)	C 0	.80	(43, 7)	C 0
12	.70	(22, 9)	C 0	.60	(24, 1)	C 0	.60	(98, 4)	C 0	.60	(136,21)	C 0	.60	(140, 1)	C 0

JOB: STALBAN TOWER PR AM W&G

RUN: STALBAN TOWER PROP. MORNING

CALM DURATION FREQUENCY

Hours of Consecutive Calm Winds	Frequency of Occurrence	(Julian day/hour ending) of Significant Occurrences
1	188	(7,13)(11, 5)(11,13)(21,24)(23,19)(29, 5)(31, 3)(31, 6)(34,24)(35, 6) (40,18)(42,23)(43, 5)(46, 2)(46,14)(48, 5)(54. 2)(54, 6)(56, 2)(59, 8) (62, 6)(62,23)(71,19)(72,23)(73, 4)(73, 8)(76, 8)(83, 4)(84,23)(85, 1) (105, 7)(110,18)(111,20)(125, 5)(126, 2)(126, 4)(132,21)(136, 8)(137, 4)(137, 6) (143,21)(144, 1)(154, 4)(154, 6)(156, 6)(158, 1)(160,24)(164, 1)(169, 6)(174, 4) (174,20)(175,21)(179, 6)(180, 5)(180,24)(182, 3)(182, 6)(184, 1)(188, 7)(188,24) (190, 2)(190,24)(191, 4)(191, 6)(192, 1)(192, 6)(193, 3)(193,23)(195,24)(198, 8) (199,20)(201,21)(201,24)(202, 2)(202, 5)(202,23)(203, 6)(204, 2)(204, 5)(204, 7) .05,.2)(205,24)(206, 2)(206, 4)(210, 5)(212, 2)(214, 9)(214,21)(214,23)(215, 2) .15, 4)(215,21)(228,23)(230, 3)(233, 4)(238, 5)(239,22)(240, 2)(242, 3)(242,21) (242,23)(243, 1)(243,23)(244, 2)(244, 5)(246,22)(246,24)(247, 7)(248, 5)(250,22) (253,21)(255, 1)(257,24)(258, 3)(259,24)(260,21)(261, 1)(261, 6)(261, 8)(261,21) (261,24)(262, 3)(262, 7)(263, 1)(263, 3)(266, 4)(267, 3)(270, 1)(270, 5)(271,21) (273,14)(273,20)(276, 8)(277, 1)(280,23)(285, 8)(285,19)(288,19)(288,22)(289, 7) (289,18)(289,20)(289,24)(291,18)(292, 4)(292, 8)(294, 6)(297,23)(299, 4)(300, 6) (300, 8)(301, 4)(301, 7)(301,19)(302, 5)(306, 7)(306,15)(306,20)(307, 2)(308, 7) (308,22)(309,17)(311,19)(311,21)(312,18)(312,21)(314. 5)(315, 1)(319,11)(319,21) (320,20)(324,15)(329, 4)(329, 6)(336, 8)(338,21)(338,23)(339,11)(344,19)(344,21) (346, 8)(347, 5)(347,16)(356,19)(356,21)(357, 1)(357,23)(363,19)
2	55	(23,24)(24, 3)(29, 8)(36,18)(43, 3)(46, 6)(48,22)(49, 3)(102, 3)(111,24) (125,23)(136, 6)(139, 2)(139, 6)(156, 3)(157,21)(174,23)(193, 1)(196, 4)(198, 6) (198,23)(200,23)(203, 2)(203,22)(205, 1)(205, 5)(205, 8)(208,23)(222,24)(242, 6) (247, 3)(249,24)(250, 3)(250, 6)(250, 9)(261, 4)(262,20)(262,23)(272, 1)(279, 5) (281, 7)(286, 7)(288, 8)(289, 1)(299, 2)(301,23)(302, 2)(302,23)(306,23)(328,22) (329, 9)(344,24)(355,24)(356, 8)(361,10)
3	27	(18,23)(45,24)(49, 7)(53, 7)(102, 7)(107, 2)(144 6)(160, 7)(180,22)(183, 2) (193, 7)(194, 3)(199,24)(202,21)(209, 4)(218, 3)(228, 7)(230, 7)(243, 6)(280, 5) (281, 3)(289, 5)(301, 2)(312, 7)(320, 4)(329,19)(356, 4)
4	12	(87,24)(170, 2)(198, 3)(209,24)(233, 1)(248, 1)(254,23)(269,23)(280, 1)(300,22) (312, 3)(320, 9)
5	12	(142,24)(143, 6)(147, 2)(169, 4)(178, 7)(188, 4)(189, 6)(228, 3)(254, 6)(286,23) (295, 1)(307, 8)
6	6	(59, 6)(199, 6)(238, 2)(259, 3)(288, 5)(298, 6)

```
          7               3         (229, 7)(286, 3)(310, 2)
          9               2         (220, 6)(252, 5)
         10               3         (253, 7)(305, 9)(309, 9)

Program terminated normally
```

```
'STALBAN TOWER PR PM W&G'   60.   175.   0.   0.  12  0.3048   1
1 1 01 12 31 01
99999   64   99999   64
0  0  'U'
'REC 1'    -354.     -36.    6.0
'REC 2'     -50.     -36.   26.5
'REC 3'      50.     -52.   26.5
'REC 4'     310.     -52.    7.0
'REC 5'     258.      36.    7.2
'REC 6'      50.      36.   26.5
'REC 7'     -50.      52.   26.5
'REC 8'    -354.      52.    6.0
'REC 9'     -50.     -36.   26.5
'REC 10'    -50.     330.   27.0
'REC 11'     82.     425.   26.5
'REC 12'    -15.     588.   32.4
1  'C'
1 1 1 1 1 1 1
'STALBAN TOWER PROP. EVENING'   12
1  1
'W&G  NB APPR    '   'AG'       17.   -538.    17.     -38.  0.   50.
2  2
'W&G  NB QUEUE   '   'AG'       17.    -38.    17.    -538.  0.   30.0   3
3  1
'W&G  NB DEP     '   'AG'       17.    -38.    17.     303.  0.   50.
4  1
'W&G SB APPR     '   'AG'        4.    435.   -17.      38.  0.   55.
5  2
'W&G SB QUEUE    '   'AG'      -17.     38.     4.     435.  0.   35.0   3
6  1
'W&G SB DEP      '   'AG'      -17.     38.    17.    -538.  0.   55.
7  1
'W&G WB APPR     '   'AG'      440.     29.    34.       7.  0.   35.
8  2
'W&G WB QUEUE    '   'AG'       34.      7.   440.      29.  0.   15.0   1
9  1
'W&G WB DEP      '   'AG'       34.      7.  -364.      23.  0.   35.
10 1
'W&G EB APPR     '   'AG'     -424.      7.   -34.      -7.  0.   35.
11 2
'W&G EB QUEUE    '   'AG'      -34.     -7.  -424.      -7.  0.   15.0   1
12 1
'W&G EB DEP      '   'AG'      -34.     -7.   314.     -23.  0.   35.
01   0.0
1     1059.   11.18
2      90     65     1.0    1059   206.96    0  0  3
3      985.   11.18
4     1029.   11.18
5      90     47     1.0    1029   206.96    0  0  4
6      949.   11.18
7      309.   21.47
8      90     65     1.0     309   206.96    0  0  2
9      196.   21.47
10     137.   21.47
11     90     65     1.0     137   206.96    0  0  3
12     406.   21.47
```