APPENDIX F
AIR QUALITY

This appendix includes supporting data for the air quality analysis for all four alternatives. Tables F-1 through F-3 present the total emissions and tons per year of criteria pollutants for each affected Air Quality Control Region (AQCR) associated with Alternatives A, B, and C. Table F-4 presents the same type of data for baseline emissions of Alternative D; Table F-5 presents projected emissions totals for Alternative D. Tables F-6 through F-8 contain the MAILS input information and results for Alternatives A, B, C, and D.

Table F-1. Alternatives A, B, and C: Baseline Emissions

Total Emissions (tons/year)					
MTR/MOA	*CO*	*VOC*	NO_X	SO_X	PM_{10}
IR-178	262.08	36.67	504.89	69.31	78.1
IR-128/180	28.29	1.56	15.6	2.53	2.17
Reese 4 MOA[1]	0	0	0	0	0
Reese 5 MOA[1]	0	0	0	0	0
Roby MOA	3	0.2	0.9	0.4	0.01
Texon MOA	0.3	0.1	1.1	0.1	0.1
Mt. Dora MOA	1	0.1	3.33	0.6	0.3
[1] = 3 sortie-operations in MOAs per year would yield no measurable emissions below 5,000 feet AGL					

Tons/Year Per AQCR						
AQCR	***MTR/MOA***	*CO*	*VOC*	NO_X	SO_X	PM_{10}
153	IR-178	112.43	15.73	216.60	29.73	33.50
155	IR-178	50.58	7.08	97.44	13.38	15.07
	IR-128/180	19.83	1.09	10.94	1.77	1.52
	Total	70.41	8.17	108.38	15.15	16.59
210	Reese 5 MOA	0.00	0.00	0.00	0.00	0.00
	Roby MOA	2.94	0.20	0.88	0.39	0.01
	Total	2.94	0.20	0.88	0.39	0.01
211	IR-178	2.10	0.29	4.04	0.55	0.62
	IR-128/180	0.88	0.05	0.48	0.08	0.07
	Reese 4 MOA	0.00	0.00	0.00	0.00	0.00
	Reese 5 MOA	0.00	0.00	0.00	0.00	0.00
	Mt. Dora MOA	0.03	<0.01	0.10	0.02	0.01
	Total	3.00	0.34	4.62	0.65	0.70
218	IR-178	96.97	13.57	186.81	25.64	28.90
	IR-128/180	7.58	0.42	4.18	0.68	0.58
	Reese 4 MOA	0.00	0.00	0.00	0.00	0.00
	Reese 5 MOA	0.00	0.00	0.00	0.00	0.00
	Roby MOA	0.06	<0.01	0.02	0.01	0.00
	Texon MOA	0.30	0.10	1.10	0.10	0.10
	Total	104.91	14.09	192.11	26.43	29.58
154	Mt.Dora MOA	0.97	0.10	3.23	0.58	0.29

MTRs associated with La Junta and Harrison Electronic Scoring Sites					
MTR/MOA	*CO*	*VOC*	NO_X	SO_X	PM_{10}
IR-150	25.54	2.67	32.43	5.38	4.56
IR-177-501	50.80	6.06	78.38	11.84	11.59
IR-174	21.07	1.58	15.23	3.50	1.67
IR-592	46.66	14.09	33.72	24.01	39.65

Table F-2. Alternative B: Projected Emissions

Total Emissions (tons/year)					
MTR/MOA	*CO*	*VOC*	NO_X	SO_X	PM_{10}
IR-178	416.94	52.79	803.6	109.72	113.7
IR-128/180	22.16	0.61	1.99	0.76	0.01
Proposed Lancer MOA	59.4	3.6	28.8	8.7	2
Texon MOA	0.3	0.1	1.1	0.1	0.1
Mt. Dora MOA	0.7	0.1	3.3	0.6	0.2
[1] = 3 sortie-operations in MOAs per year would yield no measurable emissions below 5,000 feet AGL					

Tons/Year Per AQCR						
AQCR	***MTR/MOA***	*CO*	*VOC*	NO_X	SO_X	PM_{10}
153	IR-178	159.69	20.22	307.78	42.02	43.55
155	IR-178	17.93	2.27	34.55	4.72	4.89
	IR-128/180	15.53	0.43	1.39	0.53	0.01
	Total	33.46	2.70	35.95	5.25	4.90
210	IR-178	4.17	0.53	8.04	1.10	1.14
	Lancer MOA	39.20	2.38	19.01	5.74	1.32
	Total	43.37	2.90	27.04	6.84	2.46
211	IR-128/180	0.69	0.02	0.06	0.02	0.00
	Lancer MOA	20.20	1.22	9.79	2.96	0.68
	Mt. Dora MOA	0.02	0.00	0.10	0.02	0.01
	Total	20.90	1.25	10.46	3.00	0.69
218	IR-178	235.15	29.77	453.23	61.88	64.13
	IR-128/180	5.94	0.16	0.53	0.20	0.00
	Lancer MOA	2.79	0.17	1.35	0.41	0.09
	Texon MOA	0.30	0.10	1.10	0.10	0.10
	Total	244.18	30.21	456.22	62.59	64.32
154	Mt.Dora MOA	0.68	0.10	3.20	0.58	0.19

MTRs Associated with La Junta and Harrison Electronic Scoring Sites					
MTR/MOA	*CO*	*VOC*	NO_X	SO_X	PM_{10}
IR-150	9.55	0.83	9.07	1.76	1.15
IR-177/501	9.41	0.95	11.25	1.93	1.55
IR-174	14.65	0.77	4.43	1.93	0.04
IR-592	32.60	9.13	9.86	15.74	25.43

Table F-3. Alternative C: Projected Emissions

Total Emissions (tons/year)					
MTR/MOA	*CO*	*VOC*	NO_X	SO_X	PM_{10}
IR-178	346.63	43.89	668.08	91.21	94.53
IR-128/180	22.16	0.61	1.99	0.76	0.01
Reese 4 MOA[1]	0	0	0	0	0
Reese 5 MOA[1]	0	0	0	0	0
Roby MOA	3	0.2	0.9	0.4	0.01
Proposed Texon MOA	59.4	3.6	28.8	8.7	2
Mt. Dora MOA	0.7	0.1	3.3	0.6	0.2
[1] = 3 sortie-operations in MOAs per year would yield no measurable emissions below 5,000 feet AGL					

Tons/Year Per AQCR						
AQCR	***MTR/MOA***	*CO*	*VOC*	NO_X	SO_X	PM_{10}
153	IR-178	152.52	19.31	293.96	40.13	41.59
155	IR-178	17.33	2.19	33.40	4.56	4.73
	IR-128/180	15.53	0.43	1.39	0.53	0.01
	Total	32.87	2.62	34.80	5.09	4.73
210	Reese 5 MOA	0.00	0.00	0.00	0.00	0.00
	Roby MOA	2.94	0.20	0.88	0.39	0.01
	Total	2.94	0.20	0.88	0.39	0.01
211	IR-128/180	0.69	0.02	0.06	0.02	0.00
	Reese 4 MOA	0.00	0.00	0.00	0.00	0.00
	Reese 5 MOA	0.00	0.00	0.00	0.00	0.00
	Mt. Dora MOA	0.02	0.00	0.10	0.02	0.01
	Total	0.71	0.02	0.16	0.04	0.01
218	IR-178	176.78	22.38	340.72	46.52	48.21
	IR-128/180	5.94	0.16	0.53	0.20	0.00
	Reese 4 MOA	0.00	0.00	0.00	0.00	0.00
	Reese 5 MOA	0.00	0.00	0.00	0.00	0.00
	Roby MOA	0.06	0.00	0.02	0.01	0.00
	Texon MOA	59.40	3.60	28.80	8.70	2.00
	Total	242.18	26.15	370.07	55.43	50.21
154	Mt.Dora MOA	0.68	0.10	3.20	0.58	0.19

MTRs associated with La Junta and Harrison Electronic Scoring Sites					
MTR/MOA	*CO*	*VOC*	NO_X	SO_X	PM_{10}
IR-150	9.83	0.93	10.69	1.93	1.43
IR-177-501	9.41	0.95	11.25	1.93	1.55
IR-174	14.65	0.77	4.43	1.93	0.04
IR-592	32.60	9.13	9.86	15.73	25.34

Table F-4. Alternative D: Baseline Emissions

Total Emissions(Tons/year)					
MTR/MOA	*CO*	*VOC*	NO_X	SO_X	PM_{10}
IR-107	2.87	0.41	22.29	1.01	1.01
IR-109	2.34	0.32	59.17	1.60	0.63
IR-110	0.00	0.00	0.00	0.00	0.00
IR-111	4.67	0.18	14.52	0.99	7.03
IR-113	3.30	0.52	33.86	1.71	0.68
IR-128/180	28.29	1.56	15.60	2.53	2.17
IR-150	25.54	2.67	32.43	5.38	4.56
IR-178	262.08	36.67	504.89	69.31	78.10
VR-100/125	11.27	0.59	84.49	5.27	41.65
VR-108	0.36	0.04	9.92	0.27	0.09
VR-114	2.90	0.83	60.41	1.70	0.77
VR-1107/1195	3.35	0.41	93.62	2.56	0.87
VR-1175/1176	14.87	2.76	41.27	4.97	6.73
Mt. Dora MOA	0.01	0.10	20.70	0.60	0.30
AQCR 154					
IR-107	2.58	0.37	20.06	0.91	0.91
IR-109	1.76	0.24	44.38	1.20	0.47
IR-110	0.00	0.00	0.00	0.00	0.00
IR-111	4.67	0.18	14.52	0.99	7.03
IR-113	2.97	0.47	30.47	1.54	0.61
IR-128/180	0.00	0.00	0.00	0.00	0.00
IR-150	7.66	0.80	9.73	1.61	1.37
IR-178	0.00	0.00	0.00	0.00	0.00
VR-100/125	3.38	0.18	25.35	1.58	12.50
VR-108	0.25	0.03	6.94	0.19	0.06
VR-114	1.16	0.33	24.16	0.68	0.31
VR-1107/1195	2.35	0.29	65.53	1.79	0.61
VR-1175/1176	11.15	2.07	30.95	3.73	5.05
Mt. Dora MOA	0.01	0.10	20.08	0.58	0.29
Total	37.94	5.05	292.18	14.80	29.21

Table F-4. Alternative D: Baseline Emissions *(continued)*

AQCR 155	*CO*	*VOC*	*NO_X*	*SO_X*	*PM_{10}*
IR-107	0.29	0.04	2.23	0.10	0.10
IR-109	0.00	0.00	0.00	0.00	0.00
IR-110	0.00	0.00	0.00	0.00	0.00
IR-111	0.00	0.00	0.00	0.00	0.00
IR-113	0.07	0.01	0.68	0.03	0.01
IR-128/180	19.83	1.09	10.94	1.77	1.52
IR-150	1.28	0.13	1.62	0.27	0.23
IR-178	50.58	7.08	97.44	13.38	15.07
VR-100/125	3.38	0.18	25.35	1.58	12.50
VR-108	0.00	0.00	0.00	0.00	0.00
VR-114	0.58	0.17	12.08	0.34	0.15
VR-1107/1195	0.34	0.04	9.36	0.26	0.09
VR-1175/1176	0.00	0.00	0.00	0.00	0.00
Mt. Dora MOA	0.00	0.00	0.00	0.00	0.00
Total	76.34	8.74	159.70	17.73	29.67
AQCR 157					
IR-107	0.29	0.04	2.23	0.10	0.10
IR-109	0.00	0.00	0.00	0.00	0.00
IR-110	0.00	0.00	0.00	0.00	0.00
IR-111	0.00	0.00	0.00	0.00	0.00
IR-113	0.07	0.01	0.68	0.03	0.01
IR-128/180	0.00	0.00	0.00	0.00	0.00
IR-150	1.28	0.13	1.62	0.27	0.23
IR-178	0.00	0.00	0.00	0.00	0.00
VR-100/125	3.38	0.18	25.35	1.58	12.50
VR-108	0.00	0.00	0.00	0.00	0.00
VR-114	0.58	0.17	12.08	0.34	0.15
VR-1107/1195	0.34	0.04	9.36	0.26	0.09
VR-1175/1176	0.00	0.00	0.00	0.00	0.00
Mt. Dora MOA	0.00	0.00	0.00	0.00	0.00
Total	5.93	0.57	51.32	2.58	13.08

Table F-4. Alternative D: Baseline Emissions *(continued)*

AQCR 211	*CO*	*VOC*	NO_X	SO_X	PM_{10}
IR-107	0.29	0.04	2.23	0.10	0.10
IR-109	0.00	0.00	0.00	0.00	0.00
IR-110	0.00	0.00	0.00	0.00	0.00
IR-111	0.00	0.00	0.00	0.00	0.00
IR-113	0.07	0.01	0.68	0.03	0.01
IR-128/180	7.58	0.42	4.18	0.68	0.58
IR-150	1.28	0.13	1.62	0.27	0.23
IR-178	0.00	0.00	0.00	0.00	0.00
VR-100/125	3.38	0.18	25.35	1.58	12.50
VR-108	0.00	0.00	0.08	0.00	0.00
VR-114	0.58	0.17	12.08	0.34	0.15
VR-1107/1195	0.34	0.04	9.36	0.26	0.09
VR-1175/1176	0.00	0.00	0.00	0.00	0.00
Mt. Dora MOA	0.00	0.00	0.00	0.00	0.00
Total	13.51	0.99	55.58	3.26	13.66

Table F-5. Alternative D: Projected Emissions

Total Emissions (tons/year)					
MTR/MOA	*CO*	*VOC*	NO_X	SO_X	PM_{10}
IR-107	2.87	0.41	22.29	1.01	1.01
IR-109	2.34	0.32	59.17	1.60	0.63
IR-110	0.00	0.00	0.00	0.00	0.00
IR-111	4.67	0.18	14.52	0.99	7.03
IR-113	3.30	0.52	33.86	1.71	0.68
IR-128/180	28.29	1.56	15.60	2.53	2.17
IR-150	25.54	2.67	32.43	5.38	4.56
IR-178	262.08	36.67	504.89	69.31	78.10
VR-100/125	11.27	0.59	84.49	5.27	41.65
VR-108	0.36	0.04	9.92	0.27	0.09
VR-114	2.90	0.83	60.41	1.70	0.77
VR-1107/1195	3.35	0.41	93.62	2.56	0.87
VR-1175/1176	14.87	2.76	41.27	4.97	6.73
Mt. Dora MOA	0.01	0.10	20.70	0.60	0.30
Proposed IR-153	356.60	45.20	687.20	93.80	97.20
AQCR 154					
IR-107	2.58	0.37	20.06	0.91	0.91
IR-109	1.76	0.24	44.38	1.20	0.47
IR-110	0.00	0.00	0.00	0.00	0.00
IR-111	4.67	0.18	14.52	0.99	7.03
IR-113	2.97	0.47	30.47	1.54	0.61
IR-128/180	0.00	0.00	0.00	0.00	0.00
IR-150	7.66	0.80	9.73	1.61	1.37
IR-178	0.00	0.00	0.00	0.00	0.00
VR-100/125	3.38	0.18	25.35	1.58	12.50
VR-108	0.25	0.03	6.94	0.19	0.06
VR-114	1.16	0.33	24.16	0.68	0.31
VR-1107/1195	2.35	0.29	65.53	1.79	0.61
VR-1175/1176	11.15	2.07	30.95	3.73	5.05
Mt. Dora MOA	0.01	0.10	20.08	0.58	0.29
Proposed IR-153	243.20	30.83	468.67	63.97	66.29
Total	281.14	35.88	760.85	78.78	95.50

Table F-5. Alternative D: Projected Emissions *(continued)*

AQCR 155					
IR-107	0.29	0.04	2.23	0.10	0.10
IR-109	0.00	0.00	0.00	0.00	0.00
IR-110	0.00	0.00	0.00	0.00	0.00
IR-111	0.00	0.00	0.00	0.00	0.00
IR-113	0.07	0.01	0.68	0.03	0.01
IR-128/180	19.83	1.09	10.94	1.77	1.52
IR-150	1.28	0.13	1.62	0.27	0.23
IR-178	50.58	7.08	97.44	13.38	15.07
VR-100/125	3.38	0.18	25.35	1.58	12.50
VR-108	0.00	0.00	0.00	0.00	0.00
VR-114	0.58	0.17	12.08	0.34	0.15
VR-1107/1195	0.34	0.04	9.36	0.26	0.09
VR-1175/1176	0.00	0.00	0.00	0.00	0.00
Mt. Dora MOA	0.00	0.00	0.00	0.00	0.00
Proposed IR-153	27.81	3.53	53.60	7.32	7.58
Total	104.15	12.27	213.30	25.05	37.25
AQCR 157					
IR-107	0.29	0.04	2.23	0.10	0.10
IR-109	0.00	0.00	0.00	0.00	0.00
IR-110	0.00	0.00	0.00	0.00	0.00
IR-111	0.00	0.00	0.00	0.00	0.00
IR-113	0.07	0.01	0.68	0.03	0.01
IR-128/180	0.00	0.00	0.00	0.00	0.00
IR-150	1.28	0.13	1.62	0.27	0.23
IR-178	0.00	0.00	0.00	0.00	0.00
VR-100/125	3.38	0.18	25.35	1.58	12.50
VR-108	0.00	0.00	0.00	0.00	0.00
VR-114	0.58	0.17	12.08	0.34	0.15
VR-1107/1195	0.34	0.04	9.36	0.26	0.09
VR-1175/1176	0.00	0.00	0.00	0.00	0.00
Mt. Dora MOA	0.00	0.00	0.00	0.00	0.00
Proposed IR-153	31.38	3.98	60.47	8.25	8.55
Total	37.31	4.55	111.79	10.84	21.63

Table F-5. Alternative D: Projected Emissions *(continued)*

AQCR 211					
IR-107	0.29	0.04	2.23	0.10	0.10
IR-109	0.00	0.00	0.00	0.00	0.00
IR-110	0.00	0.00	0.00	0.00	0.00
IR-111	0.00	0.00	0.00	0.00	0.00
IR-113	0.07	0.01	0.68	0.03	0.01
IR-128/180	7.58	0.42	4.18	0.68	0.58
IR-150	1.28	0.13	1.62	0.27	0.23
IR-178	0.00	0.00	0.00	0.00	0.00
VR-100/125	3.38	0.18	25.35	1.58	12.50
VR-108	0.00	0.00	0.08	0.00	0.00
VR-114	0.58	0.17	12.08	0.34	0.15
VR-1107/1195	0.34	0.04	9.36	0.26	0.09
VR-1175/1176	0.00	0.00	0.00	0.00	0.00
Mt. Dora MOA	0.00	0.00	0.00	0.00	0.00
Proposed IR-153	54.20	6.87	104.45	14.26	14.77
Total	67.71	7.86	160.03	17.52	28.44

MTRs associated with La Junta and Harrison ESSs					
MTR/MOA	*CO*	*VOC*	NO_X	SO_X	PM_{10}
IR-150	0.80	0.13	1.79	0.23	0.28
IR-177-501	1.09	0.17	2.43	0.32	0.38
IR-174	14.65	0.77	4.43	1.93	0.04
IR-592	31.78	9.30	145.10	15.30	24.50

MAILS - VERSION 1.1 (2/15/90):
MULTIPLE AIRCRAFT INSTANTANEOUS LINE SOURCE MODEL

RBTI EIS ALTERNATIVE A - CO
****

Pollutant : CO No. of Aircraft (Types) : 3
Avg. Period: 1-hour Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	1-hour Conc. (micrograms/m**3)
B1B	200	630	303.39	1	2.4003
B52H	200	400	101.18	1	1.2608
F16	200	575	13.10	1	.1136
				Total 1-hour conc. =	3.7747

The total 1-hour conc. is 9.44E-03 % of the PSD
Class I 1-hour increment for CO (40000 micrograms/m**3)

RBTI EIS ALTERNATIVE A - CO
****

Pollutant : CO No. of Aircraft (Types) : 3
Avg. Period: 8-hour Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	8-hour Conc. (micrograms/m**3)
B1B	200	630	303.39	2	.1980
B52H	200	400	101.18	1	.0520
F16	200	575	13.10	1	.0047
				Total 8-hour conc. =	.2547

The total 8-hour conc. is 2.55E-03 % of the PSD
Class I 8-hour increment for CO (10000 micrograms/m**3)

MAILS - VERSION 1.1 (2/15/90):
MULTIPLE AIRCRAFT INSTANTANEOUS LINE SOURCE MODEL

RBTI EIS ALTERNATIVE A - NO2
****

Pollutant : NO2 No. of Aircraft (Types) : 3
Avg. Period: Annual Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	Annual Conc. (micrograms/m**3)
B1B	200	630	91.82	894	.0074
B52H	200	400	595.20	616	.0522
F16	200	575	366.05	50	.0018
			Total annual conc. =		.0614

The total annual conc. is 2.4551 % of the PSD
Class I annual increment for NO2 (2 micrograms/m**3)

MAILS - VERSION 1.1 (2/15/90):
MULTIPLE AIRCRAFT INSTANTANEOUS LINE SOURCE MODEL

RBTI EIS ALTERNATIVE A - PARTICULATE
****

Pollutant : PART
Avg. Period: 24-hour
No. of Aircraft (Types) : 3
Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	24-hour Conc. (micrograms/m**3)
B1B	200	630	.80	4	.0003
B52H	200	400	102.97	3	.0401
F16	200	575	3.42	1	.0003
				Total 24-hour conc. =	.0407

The total 24-hour conc. is .5084 % of the PSD
Class I 24-hour increment for PART(8 micrograms/m**3)

RBTI EIS ALTERNATIVE A - PARTICULATE
****

Pollutant : PART
Avg. Period: Annual
No. of Aircraft (Types) : 3
Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	Annual Conc. (micrograms/m**3)
B1B	200	630	.80	894	6.46E-05
B52H	200	400	102.97	616	.0090
F16	200	575	3.42	50	1.69E-05
				Total annual conc. =	.0091

The total annual conc. is .2276 % of the PSD
Class I annual increment for PART(4 micrograms/m**3)

MAILS - VERSION 1.1 (2/15/90):
MULTIPLE AIRCRAFT INSTANTANEOUS LINE SOURCE MODEL

RBTI EIS ALTERNATIVE A - SO2
****

Pollutant : SO2 No. of Aircraft (Types) : 3
Avg. Period: 3-hour Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	3-hour Conc. (micrograms/m**3)
B1B	200	630	39.92	1	.0526
B52H	200	400	59.52	1	.1236
F16	200	575	10.01	1	.0145
			Total 3-hour conc. =		.1907

The total 3-hour conc. is .7628 % of the PSD
Class I 3-hour increment for SO2 (25 micrograms/m**3)

RBTI EIS ALTERNATIVE A - SO2
****

Pollutant : SO2 No. of Aircraft (Types) : 3
Avg. Period: 24-hour Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	24-hour Conc. (micrograms/m**3)
B1B	200	630	39.92	4	.0132
B52H	200	400	59.52	3	.0232
F16	200	575	10.01	1	.0009
			Total 24-hour conc. =		.0372

The total 24-hour conc. is .7448 % of the PSD
Class I 24-hour increment for SO2 (5 micrograms/m**3)

RBTI EIS ALTERNATIVE A - SO2
****

Pollutant : SO2 No. of Aircraft (Types) : 3
Avg. Period: Annual Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	Annual Conc. (micrograms/m**3)
B1B	200	630	39.92	894	.0032

B52H	200	400	59.52	616	.0052
F16	200	575	10.01	50	4.95E-05

Total annual conc. = .0085

The total annual conc. is .4244 % of the PSD Class I annual increment for SO2 (2 micrograms/m**3)

MAILS - VERSION 1.1 (2/15/90):
MULTIPLE AIRCRAFT INSTANTANEOUS LINE SOURCE MODEL

RBTI EIS ALTERNATIVE B and C: CO

****

Pollutant : CO No. of Aircraft (Types) : 5
Avg. Period: 1-hour Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	1-hour Conc. (micrograms/m**3)
B1B	300	630	303.39	1	1.2726
B52H	300	400	101.18	1	.6684
B2	300	250	27.87	1	.2946
F16	500	575	13.10	1	.0260
TOR	500	480	18.62	1	.0442
			Total 1-hour conc. =		2.3058

The total 1-hour conc. is 5.76E-03 % of the PSD
Class I 1-hour increment for CO (40000 micrograms/m**3)

RBTI EIS ALTERNATIVE B and C: CO

****

Pollutant : CO No. of Aircraft (Types) : 5
Avg. Period: 8-hour Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	8-hour Conc. (micrograms/m**3)
B1B	300	630	303.39	2	.1050
B52H	300	400	101.18	2	.0551
B2	300	250	27.87	1	.0122
F16	500	575	13.10	1	.0011
TOR	500	480	18.62	2	.0036
			Total 8-hour conc. =		.1770

The total 8-hour conc. is 1.77E-03 % of the PSD
Class I 8-hour increment for CO (10000 micrograms/m**3)

MAILS - VERSION 1.1 (2/15/90):
MULTIPLE AIRCRAFT INSTANTANEOUS LINE SOURCE MODEL

RBTI EIS ALTERNATIVE B and C: NO2

****

Pollutant : NO2 No. of Aircraft (Types) : 5
Avg. Period: Annual Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	Annual Conc. (micrograms/m**3)
B1B	300	630	91.82	1560	.0069
B52H	300	400	595.20	999	.0448
B2	300	250	418.08	150	.0076
F16	500	575	366.05	40	.0003
TOR	500	480	41.80	1005	.0011
			Total annual conc. =		.0607

The total annual conc. is 2.4295 % of the PSD
Class I annual increment for NO2 (2 micrograms/m**3)

MAILS - VERSION 1.1 (2/15/90):
MULTIPLE AIRCRAFT INSTANTANEOUS LINE SOURCE MODEL

RBTI EIS ALTERNATIVE B and C: PARTICULATE

****

Pollutant : PART
Avg. Period: 24-hour
No. of Aircraft (Types) : 5
Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	24-hour Conc. (micrograms/m**3)
B1B	300	630	.80	6	.0002
B52H	300	400	102.97	4	.0283
B2	300	250	31.70	1	.0035
F16	500	575	3.39	1	7.00E-05
TOR	500	480	3.42	4	.0003
				Total 24-hour conc. =	.0325

The total 24-hour conc. is .4057 % of the PSD
Class I 24-hour increment for PART(8 micrograms/m**3)

RBTI EIS ALTERNATIVE B and C: PARTICULATE

****

Pollutant : PART
Avg. Period: Annual
No. of Aircraft (Types) : 5
Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	Annual Conc. (micrograms/m**3)
B1B	300	630	.80	1560	5.98E-05
B52H	300	400	102.97	999	.0078
B2	300	250	31.70	150	.0006
F16	500	575	3.39	40	3.07E-06
TOR	500	480	3.42	1005	9.32E-05
				Total annual conc. =	.0085

The total annual conc. is .2122 % of the PSD
Class I annual increment for PART(4 micrograms/m**3)

MAILS - VERSION 1.1 (2/15/90):
MULTIPLE AIRCRAFT INSTANTANEOUS LINE SOURCE MODEL

RBTI EIS ALTERNATIVE B and C: SO2

****

Pollutant : SO2 No. of Aircraft (Types) : 5
Avg. Period: 3-hour Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	3-hour Conc. (micrograms/m**3)
B1B	300	630	39.92	1	.0279
B52H	300	400	59.52	1	.0655
B2	300	250	34.84	1	.0614
F16	500	575	10.01	1	.0033
TOR	500	480	7.60	1	.0030
			Total 3-hour conc. =		.1611

The total 3-hour conc. is .6445 % of the PSD
Class I 3-hour increment for SO2 (25 micrograms/m**3)

RBTI EIS ALTERNATIVE B and C: SO2

****

Pollutant : SO2 No. of Aircraft (Types) : 5
Avg. Period: 24-hour Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	24-hour Conc. (micrograms/m**3)
B1B	300	630	39.92	6	.0105
B52H	300	400	59.52	4	.0164
B2	300	250	34.84	1	.0038
F16	500	575	10.01	1	.0002
TOR	500	480	7.60	4	.0008
			Total 24-hour conc. =		.0316

The total 24-hour conc. is .6329 % of the PSD
Class I 24-hour increment for SO2 (5 micrograms/m**3)

RBTI EIS ALTERNATIVE B and C: SO2

****

Pollutant : SO2 No. of Aircraft (Types) : 5
Avg. Period: Annual Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	Annual Conc. (micrograms/m**3)
B1B	300	630	39.92	1560	.0030
B52H	300	400	59.52	999	.0045
B2	300	250	34.84	150	.0006
F16	500	575	10.01	40	9.06E-06
TOR	500	480	7.60	1005	.0002
			Total annual conc. =		.0083

The total annual conc. is .4156 % of the PSD
Class I annual increment for SO2 (2 micrograms/m**3)

Note: The MAILS analysis presented for Alternatives B and C in this appendix include calculations for GAF Tornados flying on IR-102/141 and overlapping with IR-178. As described in Section 2.2 of the EIS, IR-102/141 has been eliminated and no Tornados would fly on this MTR. Therefore, the discussion of the MAILS results presented in Sections 4.1.3 and 4.1.4 of the EIS has been modified to reflect the elimination of Tornado aircraft on IR 102/141.

MAILS - VERSION 1.1 (2/15/90):
MULTIPLE AIRCRAFT INSTANTANEOUS LINE SOURCE MODEL

RBTI EIS ALTERNATIVE D: CO
****

Pollutant : CO
Avg. Period: 1-hour
No. of Aircraft (Types) : 3
Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	1-hour Conc. (micrograms/m**3)
B1B	300	630	303.39	1	1.2726
B52H	300	400	101.18	1	.6684
B2	300	250	27.87	1	.2946
			Total 1-hour conc. =		2.2356

The total 1-hour conc. is 5.59E-03 % of the PSD
Class I 1-hour increment for CO (40000 micrograms/m**3)

RBTI EIS ALTERNATIVE D: CO *
****

Pollutant : CO
Avg. Period: 8-hour
No. of Aircraft (Types) : 3
Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	8-hour Conc. (micrograms/m**3)
B1B	300	630	303.39	2	.1050
B52H	300	400	101.18	2	.0551
B2	300	250	27.87	1	.0122
			Total 8-hour conc. =		.1723

The total 8-hour conc. is 1.72E-03 % of the PSD
Class I 8-hour increment for CO (10000 micrograms/m**3)

MAILS - VERSION 1.1 (2/15/90):
MULTIPLE AIRCRAFT INSTANTANEOUS LINE SOURCE MODEL

RBTI EIS ALTERNATIVE D: NO2
****

Pollutant : NO2 No. of Aircraft (Types) : 3
Avg. Period: Annual Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	Annual Conc. (micrograms/m**3)
B1B	300	630	91.82	1530	.0067
B52H	300	400	595.20	980	.0440
B2	300	250	418.08	150	.0076
			Total annual conc. =		.0583

The total annual conc. is 2.3313 % of the PSD
Class I annual increment for NO2 (2 micrograms/m**3)

MAILS - VERSION 1.1 (2/15/90):
MULTIPLE AIRCRAFT INSTANTANEOUS LINE SOURCE MODEL

RBTI EIS ALTERNATIVE D: PARTICULATES
****

Pollutant : PART No. of Aircraft (Types) : 3
Avg. Period: 24-hour Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	24-hour Conc. (micrograms/m**3)
B1B	300	630	.80	6	.0002
B52H	300	400	102.97	4	.0283
B2	300	250	31.70	1	.0035
			Total 24-hour conc. =		.0320

The total 24-hour conc. is .4005 % of the PSD
Class I 24-hour increment for PART(8 micrograms/m**3)

RBTI EIS ALTERNATIVE D- PARTICULATES *
****

Pollutant : PART No. of Aircraft (Types) : 3
Avg. Period: Annual Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	Annual Conc. (micrograms/m**3)
B1B	300	630	.80	1530	5.86E-05
B52H	300	400	102.97	980	.0076
B2	300	250	31.70	150	.0006
			Total annual conc. =		.0082

The total annual conc. is .2061 % of the PSD
Class I annual increment for PART(4 micrograms/m**3)

MAILS - VERSION 1.1 (2/15/90):
MULTIPLE AIRCRAFT INSTANTANEOUS LINE SOURCE MODEL

RBTI EIS ALTERNATIVE D: SO2
****

Pollutant : SO2 No. of Aircraft (Types) : 3
Avg. Period: 3-hour Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	3-hour Conc. (micrograms/m**3)
B1B	300	630	39.92	1	.0279
B52H	300	400	49.92	1	.0550
B2	300	250	34.84	1	.0614
			Total 3-hour conc. =		.1442

The total 3-hour conc. is .5770 % of the PSD
Class I 3-hour increment for SO2 (25 micrograms/m**3)

RBTI EIS ALTERNATIVE D: SO2
****

Pollutant : SO2 No. of Aircraft (Types) : 3
Avg. Period: 24-hour Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	24-hour Conc. (micrograms/m**3)
B1B	300	630	39.92	6	.0105
B52H	300	400	49.92	4	.0137
B2	300	250	34.84	1	.0038
			Total 24-hour conc. =		.0280

The total 24-hour conc. is .5609 % of the PSD
Class I 24-hour increment for SO2 (5 micrograms/m**3)

RBTI EIS ALTERNATIVE D: SO2
****

Pollutant : SO2 No. of Aircraft (Types) : 3
Avg. Period: Annual Mixing Height : 5000 ft.

Aircraft	Altitude (ft)	Airspeed (mph)	Emiss. Rate (lb/hr)	Flight Freq.	Annual Conc. (micrograms/m**3)
B1B	300	630	39.92	1530	.0029

B52H	300	400	49.92	980	.0037
B2	300	250	34.84	150	.0006
				Total annual conc. =	.0072

The total annual conc. is .3622 % of the PSD
Class I annual increment for SO2 (2 micrograms/m**3)