Table 1 - AIRCRAFT EMISSION FACTORS

Aircraft	# of Engines	Aircraft Engine	Power Setting	Fuel Flow rate Lb/HR	Pounds/1000 pounds Fuel THC	CO	NO_X	SO_2	PM_{10}	kg/lb fuel CO_2	g/lb fuel CH_4	g/lb fuel N_2O
KC-135R	4	F108-CF-100	Idle	1,136	0.92	27.19	3.94	1.02	9.08	1.41	0.04	0.05
			Approach	2,547	0.04	6.39	6.96	2.29	1.55	1.41	0.04	0.05
			Intermediate	5,650	0.03	1.61	13.53	5.09	0.65	1.41	0.04	0.05
			Military	**6,458**	**0.03**	**0.63**	**15.28**	**5.81**	**1.59**	1.41	0.04	0.05
				6,458	0.03	0.63	15.28	5.81	1.59	1.41	0.04	0.05
F-15 A/B/C/D	1	F100-PW-100	Idle	1,097	8.6	35.29	4.38		2.06			
			Approach	2,746	0.16	3.49	12.33		2.63			
			Intermediate	7,617	0.14	0.91	30.89		2.06			
			Military	10,104	0.28	0.9	39.44		1.33			
			AB-5	54,074	0.05	9.57	6.62		1.15			
F-15 C/D/E	1	F100-PW-200	Idle	1,016	8.26	26.61	4.99	0.91	2.06	1.41	0.04	0.05
			Approach	3,135	17.62	1.38	13.82	2.82	2.63	1.41	0.04	0.05
			Intermediate	5,406	4.97	0.49	27.6	4.86	2.06	1.41	0.04	0.05
			Military	8,717	3.47	0.86	39.12	7.84	1.33	1.41	0.04	0.05
			AB-5	40,247	0.32	9.47	7.03	36.22	1.15	1.41	0.04	0.05
F-15 E	1	F100-PW-229	Idle	1,087	0.38	10.16	3.8		2.06			
			Approach	3,098	0.21	1.17	15.08		2.63			
			Intermediate	5,838	0.3	0.15	17.53		2.06			
			Military	11,490	0.54	0.66	57.65		1.33			
			AB-1	20,793	16.26	76.62	50.92		1.15			
			Average[2]	**10,103.67**	**1.43**	**0.81**	**45.40**	**7.84**	**1.33**	**1.41**	**0.04**	**0.05**
F-16A/B	1	F100-PW-200	Idle	1,016	8.26	26.61	4.99	0.91	2.06	1.41	0.04	0.05
			Approach	3,135	17.62	1.38	13.82	2.82	2.63	1.41	0.04	0.05
			Intermediate	5,406	4.97	0.49	27.6	4.86	2.06	1.41	0.04	0.05
			Military	8,717	3.47	0.86	39.12	7.84	1.33	1.41	0.04	0.05
			AB-5	40,247	0.32	9.47	7.03	36.22	1.15	1.41	0.04	0.05
F-16C/D	1	F110-GE-129	Idle	1,036	2.64	34.58	3.19	0.93	2.61	1.41	0.04	0.05
			Approach	4,956	0.05	3.85	11.6	4.46	1.37	1.41	0.04	0.05
			Intermediate	7,136	0.01	2.49	17.33	6.42	0.57	1.41	0.04	0.05
			Military	9,985	0.54	2.42	27.13	8.99	0.14	1.41	0.04	0.05
			AB-1	16,826	64.8	104.6	15.08	15.14	3.34	1.41	0.04	0.05
F-16N	1	F110-GE-100	Idle	1,044	2.1	31.06	4.33	0.94	1.84	1.41	0.04	0.05
			Approach	4,128	0.36	4	10.87	3.72	0.95	1.41	0.04	0.05
			Intermediate	6,598	0.19	2.2	18.25	5.94	0.57	1.41	0.04	0.05
			Military	9,974	0.62	2.05	30.35	8.98	0.14	1.41	0.04	0.05
			AB-1	16,374	69.33	97.5	15.55	14.74	3.34	1.41	0.04	0.05
			Idle	1,032	4	31	4	1	2	1.41	0.04	0.05
			Approach	4,073	6	3	12	4	2	1.41	0.04	0.05
			Intermediate	6,380	2	2	21	6	1	1.41	0.04	0.05
			Military	9,559	2	2	32	9	1	1.41	0.04	0.05
			AB-1	24,482	45	71	13	22	3	1.41	0.04	0.05
			Average[2]	**9,559**	**2**	**2**	**32**	**9**	**1**	**1.41**	**0.04**	**0.05**
B-1B	4	F101-GE-102	Idle	1,117		24.47	4.1	1.01	2.17	1.41	0.04	0.05
			Approach	4,533	0.14	1.03	9.16	4.08	4.23	1.41	0.04	0.05
			Intermediate	6,557	0.13	0.85	13.15	5.9	1.35	1.41	0.04	0.05
			Military	**7,828**	**0.11**	**0.83**	**12.83**	**7.05**	**1.68**	1.41	0.04	0.05
			AB-1	15,314	61.82	43.47	16.91	13.78	2.86	1.41	0.04	0.05
				7,828	0	1	13	7	2	1	0.04	0.05
B-2	4	F118-GE-100	Idle	1,097	0.59	20.98	4.3	0.99	1.25	1.41	0.04	0.05
			Approach	3,773	0.87	2.02	11.09	3.4	4.47	1.41	0.04	0.05
			Intermediate	6,350	ND	0.84	18.01	5.72	1.78	1.41	0.04	0.05
			Military	**10,887**	**ND**	**0.65**	**33.12**	**9.8**	**1.64**	1.41	0.04	0.05
				10,887	ND	0.65	33.12	9.8	1.64	1.41	0.04	0.05
B-52H	8	TF33-P-3	Idle	900	90.91	95.06	1.39	0.81	4.98	1.41	0.04	0.05
			Approach	3,800	1.37	5.24	6.37	3.42	3.55	1.41	0.04	0.05
			Intermediate	6,240	1.5	2.11	7.88	5.62	3.15	1.41	0.04	0.05
			Military	**7,440**	**0.55**	**1.19**	**12.08**	**6.7**	**3.67**	1.41	0.04	0.05
				7,440.00	0.55	1.19	12.08	6.70	3.67	1.41	0.04	0.05

Notes:

(1) Unless otherwise cited, all data on this page are from Table 3-3 of "Air Emissions Inventory Guidance Document for Mobile Sources at Air Force Installations" IERA-RS-BR-SR-2001-0010, AF IERA, Brooks Air Force Base TX, January 2002.

(2) Millitary Mode Averages were not taken from the AF IERA

(3) JP-8 (jet fuel density) - 6.8 lb/gallon

Table 2 - Baseline Airfield Emissions

AirspaceUnit	Aircraft	*Total Hours*		VOC (TPY)	CO (TPY)	NO_X (TPY)	SO_2 (TPY)	PM_{10} (TPY)	$PM_{2.5}$ (TPY)	CO_2 (Metric TPY)	CH_4 (Metric TPY)	N_2O (Metric TPY)	CO_2e (Metric TPY)
Powder River A MOA	B-1	106		0.18	1.38	21.34	11.73	2.79	2.79	4,682.05	0.13	0.15	4,731.84
	B-52	0		0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.45
	Tankers [1]	0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	2		0.01	0.02	0.28	0.07	0.00	0.00	79.32	0.00	0.00	80.16
			TOTAL	***0.20***	***1.40***	***21.62***	***11.80***	***2.80***	***2.80***	**4,761.81**	**0.13**	**0.15**	**4,812.45**
Powder River B MOA	B-1	106		0.18	1.38	21.34	11.73	2.79	2.79	4,682.05	0.13	0.15	4,731.84
	B-52	0		0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-
	Tankers [1]	0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	2		0.01	0.02	0.28	0.07	0.00	0.00	79.32	0.00	0.00	80.16
			TOTAL	***0.18***	***1.38***	***21.34***	***11.73***	***2.79***	***2.79***	**4,761.37**	**0.13**	**0.15**	**4,812.00**
			TOTAL	**0.38**	**2.78**	**42.96**	**23.53**	**5.59**	**5.59**	**9,523.18**	**0.27**	**0.31**	**9,624.45**

GHG Baseline Airfield Emissions

Table 3 - Alternative A Airfield Emissions

AirspaceUnit	Aircraft	*Total Hours*		VOC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O	CO_2e
													-
Powder River 1 MOA	B-1	97.5		0.17	1.27	19.58	10.76	2.56	2.56	4,295.59	0.12	0.14	4,341.27
	B-52	29.7		0.49	1.05	10.69	5.93	3.25	3.25	1,310.09	0.04	0.04	1,324.02
	Tankers [1]	0.0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	3.9		0.03	0.03	0.60	0.16	0.01	0.01	172.74	0.00	0.01	174.58
AirspaceUnit	Aircraft		***TOTAL***	***0.68***	***2.35***	***30.87***	***16.85***	***5.82***	***5.82***	**5,778.42**	**0.16**	**0.19**	**5,839.87**
													-
Powder River 2 MOA	B-1	165.7		0.29	2.15	33.28	18.29	4.36	4.36	7,300.47	0.21	0.24	7,378.11
	B-52	48.7		0.80	1.72	17.49	9.70	5.31	5.31	2,143.83	0.06		2,145.10
	Tankers [1]	0.0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	4.3		0.03	0.04	0.66	0.18	0.01	0.01	189.49	0.01	0.01	191.50
AirspaceUnit	Aircraft		***TOTAL***	***1.11***	***3.91***	***51.43***	***28.16***	***9.68***	***9.68***	**9,633.78**	**0.27**	**0.24**	**9,714.71**
													-
Powder River 3 MOA	B-1	91.1		0.16	1.18	18.30	10.06	2.40	2.40	4,015.77	0.11	0.13	4,058.47
	B-52	5.4		0.09	0.19	1.94	1.08	0.59	0.59	238.40	0.01	0.01	240.93
	Tankers [1]	0.0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	2.7		0.02	0.02	0.42	0.11	0.01	0.01	118.98	0.00	0.00	120.24
AirspaceUnit	Aircraft		***TOTAL***	***0.27***	***1.40***	***20.67***	***11.25***	***2.99***	***2.99***	**4,373.14**	**0.12**	**0.14**	**4,419.65**
													-
Powder River 4 MOA	B-1	94.6		0.16	1.23	19.00	10.44	2.49	2.49	4,169.12	0.12	0.14	4,213.45
	B-52	29.7		0.49	1.05	10.69	5.93	3.25	3.25	1,310.09	0.04	0.04	1,324.02
	Tankers [1]	0.0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	3.4		0.02	0.03	0.52	0.14	0.01	0.01	148.94	0.00	0.00	150.53
AirspaceUnit	Aircraft		***TOTAL***	***0.67***	***2.31***	***30.21***	***16.51***	***5.74***	***5.74***	**5,628.15**	**0.16**	**0.18**	**5,688.01**
													-
GAP A MOA	B-1	2.8		0.00	0.04	0.55	0.30	0.07	0.07	121.62	0.00	0.00	122.92
	B-52	0.0		0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-
	Tankers [1]	0.0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	0.5		0.00	0.00	0.08	0.02	0.00	0.00	22.91	0.00	0.00	23.16
AirspaceUnit	Aircraft		***TOTAL***	***0.01***	***0.04***	***0.63***	***0.33***	***0.07***	***0.07***	**144.54**	**0.00**	**0.00**	**146.07**
													-
GAP B MOA	B-1	3.7		0.01	0.05	0.75	0.41	0.10	0.10	164.81	0.00	0.01	166.56
	B-52	0.0		0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-
	Tankers [1]	0.0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	0.7		0.01	0.01	0.11	0.03	0.00	0.00	31.73	0.00	0.00	32.07
AirspaceUnit	Aircraft		***TOTAL***	***0.01***	***0.05***	***0.86***	***0.44***	***0.10***	***0.10***	**196.54**	**0.01**	**0.01**	**198.63**
													-
GAP C MOA	B-1	1.9		0.00	0.03	0.39	0.21	0.05	0.05	85.49	0.00	0.00	86.40
	B-52	0.0		0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-
	Tankers [1]	0.0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	0.4		0.00	0.00	0.06	0.01	0.00	0.00	15.86	0.00	0.00	16.03
			TOTAL	***0.01***	***0.03***	***0.45***	***0.23***	***0.05***	***0.05***	**101.35**	**0.00**	**0.00**	**102.43**
			TOTAL	**2.76**	**10.10**	**135.12**	**73.77**	**24.47**	**24.47**	**25,855.93**	**0.73**	**0.77**	**26,109.36**

GHG Alt. A Airfield Emissions

Table 4 - Alternative B Airfield Emissions

AirspaceUnit	Aircraft	*Total Hours*		VOC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O	CO_2e
													-
Powder River 2 MOA	B-1	168.6		0.29	2.19	33.87	18.61	4.44	4.44	7,431.35	0.21	0.24	7,510.38
	B-52	48.7		0.80	1.72	17.49	9.70	5.31	5.31	2,143.83	0.06	0.07	2,166.63
	Tankers [1]	0.0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	4.8		0.04	0.04	0.73	0.20	0.01	0.01	209.76	0.01	0.01	211.99
AirspaceUnit	Aircraft		***TOTAL***	***1.12***	***3.95***	***52.10***	***28.51***	***9.76***	***9.76***	**9,784.93**	**0.28**	**0.32**	**9,888.99**
Powder River 3 MOA	B-1	92.9		0.16	1.21	18.66	10.25	2.44	2.44	4,094.20	0.12	0.13	4,137.74
	B-52	5.4		0.09	0.19	1.94	1.08	0.59	0.59	238.40	0.01	0.01	240.93
	Tankers [1]	0.0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	3.0		0.02	0.03	0.47	0.12	0.01	0.01	133.96	0.00	0.00	135.39
AirspaceUnit	Aircraft		***TOTAL***	***0.27***	***1.42***	***21.08***	***11.46***	***3.04***	***3.04***	**4,466.56**	**0.13**	**0.14**	**4,514.06**
Powder River 4 MOA	B-1	96.9		0.17	1.26	19.46	10.69	2.55	2.55	4,269.59	0.12	0.14	4,314.99
	B-52	29.7		0.49	1.05	10.69	5.93	3.25	3.25	1,310.09	0.04	0.04	1,324.02
	Tankers [1]	0.0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	3.8		0.03	0.03	0.58	0.16	0.01	0.01	167.45	0.00	0.01	169.23
AirspaceUnit	Aircraft		***TOTAL***	***0.68***	***2.34***	***30.73***	***16.78***	***5.81***	***5.81***	**5,747.13**	**0.16**	**0.19**	**5,808.25**
GAP B MOA	B-1	4.3		0.01	0.06	0.86	0.47	0.11	0.11	189.04	0.01	0.01	191.05
	B-52	0.0		0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-
	Tankers [1]	0.0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	0.8		0.01	0.01	0.13	0.03	0.00	0.00	36.13	0.00	0.00	36.52
AirspaceUnit	Aircraft		***TOTAL***	***0.01***	***0.06***	***0.99***	***0.51***	***0.11***	***0.11***	**225.18**	**0.01**	**0.01**	**227.57**
GAP C MOA	B-1	2.2		0.00	0.03	0.44	0.24	0.06	0.06	97.39	0.00	0.00	98.42
	B-52	0.0		0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-
	Tankers [1]	0.0		0	0	0	0	0	0	-	-	-	-
	Transient[2]	0.4		0.00	0.00	0.06	0.02	0.00	0.00	18.51	0.00	0.00	18.70
			TOTAL	***0.01***	***0.03***	***0.51***	***0.26***	***0.06***	***0.06***	**115.89**	**0.00**	**0.00**	**117.13**
			TOTAL	**2.09**	**7.82**	**105.40**	**57.52**	**18.78**	**18.78**	**20,339.70**	**0.57**	**0.66**	**20,556.00**

GHG Alt. B Airfield Emissions

Table 5 - Alternative C Airfield Emissions

AirspaceUnit	Aircraft	*Total Hours*							
				VOC	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Powder River 1 MOA	B-1	100		0.17	1.30	20.03	11.01	2.62	2.62
	B-52	30		0.49	1.05	10.69	5.93	3.25	3.25
	Tankers [1]	0		0	0	0	0	0	0
	Transient[2]	4		0.03	0.04	0.65	0.17	0.01	0.01
AirspaceUnit	Aircraft		***TOTAL***	***0.69***	***2.38***	***31.37***	***17.11***	***5.88***	***5.88***
Powder River 2 MOA	B-1	191		0.33	2.49	38.42	21.11	5.03	5.03
	B-52	49		0.80	1.72	17.49	9.70	5.31	5.31
	Tankers [1]	0		0	0	0	0	0	0
	Transient[2]	5		0.03	0.04	0.72	0.19	0.01	0.01
AirspaceUnit	Aircraft		***TOTAL***	***1.16***	***4.25***	***56.63***	***31.00***	***10.36***	***10.36***
Powder River 3 MOA	B-1	93		0.16	1.20	18.60	10.22	2.44	2.44
	B-52	5		0.09	0.19	1.94	1.08	0.59	0.59
	Tankers [1]	0		0	0	0	0	0	0
	Transient[2]	3		0.02	0.03	0.46	0.12	0.01	0.01
AirspaceUnit	Aircraft		***TOTAL***	***0.27***	***1.42***	***21.01***	***11.42***	***3.03***	***3.03***
GAP A MOA	B-1	3		0.01	0.04	0.62	0.34	0.08	0.08
	B-52	0		0.00	0.00	0.00	0.00	0.00	0.00
	Tankers [1]	0		0	0	0	0	0	0
	Transient[2]	1		0.00	0.00	0.09	0.02	0.00	0.00
AirspaceUnit	Aircraft		***TOTAL***	***0.01***	***0.05***	***0.71***	***0.36***	***0.08***	***0.08***
GAP B MOA	B-1	4		0.01	0.05	0.84	0.46	0.11	0.11
	B-52	0		0.00	0.00	0.00	0.00	0.00	0.00
	Tankers [1]	0		0	0	0	0	0	0
	Transient[2]	1		0.01	0.01	0.12	0.03	0.00	0.00
AirspaceUnit	Aircraft		***TOTAL***	***0.01***	***0.06***	***0.97***	***0.50***	***0.11***	***0.11***
			TOTAL	**2.14**	**8.16**	**110.68**	**60.40**	**19.47**	**19.47**

GHG Alt. C Airfield Emissions

			Metric TPY
CO_2	**CH_4**	**N_2O**	**CO_2e**
4,395.18	0.12	0.14	4,441.92
1,310.09	0.04	0.04	1,324.02
-	-	-	-
186.84	0.01	0.01	188.83
5,892.11	**0.17**	**0.19**	**5,954.77**
8,427.69	0.24	0.27	8,517.31
2,143.83	0.06	0.07	2,166.63
-	-	-	-
206.23	0.01	0.01	208.42
10,777.75	**0.30**	**0.35**	**10,892.36**
4,080.98	0.12	0.13	4,124.38
238.40	0.01	0.01	240.93
-	-	-	-
131.32	0.00	0.00	132.71
4,450.70	**0.13**	**0.14**	**4,498.03**
			-
136.17	0.00	0.00	137.61
-	-	-	-
-	-	-	-
25.56	0.00	0.00	25.83
161.72	**0.00**	**0.01**	**163.44**
185.08	0.01	0.01	187.05
-	-	-	-
-	-	-	-
35.25	0.00	0.00	35.63
220.33	***0.01***	***0.01***	***222.67***
21,502.61	**0.61**	**0.70**	**21,731.28**

Notes:

1. Tankers = KC-135
2. Transient: Average Emission Factors B-1, B-2, B-52, KC-135, F-15, F-16

Note (1) CH4 has a GWP of 21 and N2O has a GWP of 310

MJU Flare Emission Factors

Table 15.8.16-1 EMISSION FACTORS FOR THE USE OF DODIC L410,
M206 AIRCRAFT COUNTERMEASURE FLARE - CARBON DIOXIDE, CRITERIA POLLUTANTS,
TOTAL NONMETHANE HYDROCARBONS, AND TOTAL SUSPENDED PARTICULATEa
EMISSION FACTOR RATING: B (except as noted)

CASRNb	Pollutant	lb per item	lb per lb NEWc
124-38-9	CO2	1.10E-02	3.40E-02
630-08-0	Carbon monoxide (CO)	1.30E-03	4.20E-03
--	Oxides of Nitrogen (NOx)	1.30E-04	4.30E-04
--	PM-2.5	6.20E-03	2.00E-02
--	PM-10	6.20E-03	2.00E-02
7446-05-09	Sulfur dioxide (SO2)	7.90E-06	2.60E-05
--	TNMHC	4.00E-04	1.30E-03
12789-66-1	TSPf	8.60E-03	2.80E-02

M206 was used for approximation to MJU Flares

http://www.globalsecurity.org/military/systems/aircraft/systems/m206.htm

Chaff Emission Factor

Source: Air Force. 1997. Environmental Effects of Self-Protection Chaff and Flares.
Prepared for Headquarters Air Combat Command, Langley AFB, Virginia

PM10/PM2.5 EF 95 gm per item

		Chaffs	Flares
Existing	Powder River A MOA	N/A	N/A
	Powder River B MOA	N/A	N/A
	Gateway ATCAA	N/A	N/A
	Black Hills ATCAA	N/A	N/A
	TOTAL	N/A	N/A
Alternative A	Powder River 1 MOA/ATCCA	8249	825
	Powder River 2 MOA/ATCAA	11017	1102
	Powder River 3 MOA/ATCAA	4224	422
	Powder River 4 MOA/ATCAA	5515	552
	Gap A MOA/ATCAA	189	19
	Gap B MOA/ATCAA	257	26
	Gap C MOA/ATCAA	133	13
	Gap B Extension MOA/ATCAA		
	Gateway ATCAA	3416	342
	TOTAL	33,000	3,301
Alternative B	Powder River 1 MOA/ATCCA	4004	400
	Powder River 2 MOA/ATCAA	11489	1149
	Powder River 3 MOA/ATCAA	4574	457
	Powder River 4 MOA/ATCAA	5850	585
	Gap A MOA/ATCAA	131	13
	Gap B MOA/ATCAA	291	29
	Gap C MOA/ATCAA	150	15
	Gap B Extension MOA/ATCAA		
	Gateway ATCAA	3541	354
	TOTAL	*30,030*	*3,002*
Alternative C	Powder River 1 MOA/ATCCA	6055	606
	Powder River 2 MOA/ATCAA	11464	1146
	Powder River 3 MOA/ATCAA	4559	456
	Powder River 4 MOA/ATCAA	3833	383
	Gap A MOA/ATCAA	211	21
	Gap B MOA/ATCAA	287	29
	Gap C MOA/ATCAA	90	9
	Gap B Extension MOA/ATCAA		
	Gateway ATCAA	3531	353
	TOTAL	*30,030*	*3,003*

Table 6 - Alternative A Chaff and Flare Emissions

Emissions by Area (Alternative A) tons/year							
	VOC/TNMHC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
Powder River A MOA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Powder River B MOA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gateway ATCAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Black Hills ATCAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Powder River 1 MOA/ATCCA	0.33	1.07	0.11	0.01	5.98	5.98	90.74
Powder River 2 MOA/ATCAA	0.44	1.43	0.14	0.01	7.99	7.99	121.19
Powder River 3 MOA/ATCAA	0.17	0.55	0.05	0.00	3.06	3.06	46.46
Powder River 4 MOA/ATCAA	0.22	0.72	0.07	0.00	4.00	4.00	60.67
Gap A MOA/ATCAA	0.01	0.02	0.00	0.00	0.14	0.14	2.08
Gap B MOA/ATCAA	0.01	0.03	0.00	0.00	0.19	0.19	2.83
Gap C MOA/ATCAA	0.01	0.02	0.00	0.00	0.09	0.09	1.46
Gateway ATCAA	0.14	0.44	0.04	0.00	2.48	2.48	37.58
Total (lbs/yr)	**1.32**	**4.29**	**0.43**	**0.03**	**23.92**	**23.92**	**363.00**

Table 7 - Alternative B Chaff and Flare Emissions

Emissions by Area (Alternative B) tons/year							
	VOC/TNMHC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
Powder River A MOA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Powder River B MOA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gateway ATCAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Black Hills ATCAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Powder River 1 MOA/ATCCA	0.16	0.52	0.05	0.00	2.90	2.90	4.40
Powder River 2 MOA/ATCAA	0.46	1.49	0.15	0.01	8.33	8.33	12.64
Powder River 3 MOA/ATCAA	0.18	0.59	0.06	0.00	3.31	3.31	5.03
Powder River 4 MOA/ATCAA	0.23	0.76	0.08	0.00	4.24	4.24	6.44
Gap A MOA/ATCAA	0.01	0.02	0.00	0.00	0.09	0.09	0.14
Gap B MOA/ATCAA	0.01	0.04	0.00	0.00	0.21	0.21	0.32
Gap C MOA/ATCAA	0.01	0.02	0.00	0.00	0.11	0.11	0.17
Gateway ATCAA	0.14	0.46	0.05	0.00	2.57	2.57	3.89
Total (lbs/yr)	**1.20**	**3.90**	**0.39**	**0.02**	**21.76**	**21.76**	**33.02**

Table 8 - Alternative C Chaff and Flare Emissions

Emissions by Area (Alternative C) tons/year							
	VOC/TNMHC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
Powder River A MOA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Powder River B MOA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gateway ATCAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Black Hills ATCAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Powder River 1 MOA/ATCCA	0.24	0.79	0.08	0.00	4.39	4.39	6.67
Powder River 2 MOA/ATCAA	0.46	1.49	0.15	0.01	8.31	8.31	12.61
Powder River 3 MOA/ATCAA	0.18	0.59	0.06	0.00	3.30	3.30	5.02
Powder River 4 MOA/ATCAA	0.15	0.50	0.05	0.00	2.78	2.78	4.21
Gap A MOA/ATCAA	0.01	0.03	0.00	0.00	0.15	0.15	0.23
Gap B MOA/ATCAA	0.01	0.04	0.00	0.00	0.21	0.21	0.32
Gap C MOA/ATCAA	0.00	0.01	0.00	0.00	0.07	0.07	0.10
Gateway ATCAA	0.14	0.46	0.05	0.00	2.56	2.56	3.88
Total (lbs/yr)	**1.20**	**3.90**	**0.39**	**0.02**	**21.76**	**21.76**	**33.03**

Table 9 - State Airfield Allocations

Powder River A MOA/ATCCA		3,047.04
Montana	87%	
N. Dakota	0%	
S. Dakota	13%	
Wyoming	0%	
	Total	100%
Powder River B MOA/ATCAA		1384.81
Montana	36%	
N. Dakota	0%	
S. Dakota	5%	
Wyoming	59%	
	Total	100%

Powder River 1 MOA/ATCCA		10,915.01
Montana	85%	
N. Dakota	0%	
S. Dakota	0%	
Wyoming	15%	
Powder River 2 MOA/ATCAA		8212.13
Montana	62%	
N. Dakota	0%	
S. Dakota	19%	
Wyoming	19%	100%
Powder River 3 MOA/ATCAA		4530.66
Montana	37%	
N. Dakota	50%	
S. Dakota	13%	
Wyoming	0%	100%
Powder River 4 MOA/ATCAA		5484.90
Montana	0%	
N. Dakota	57%	
S. Dakota	43%	
Wyoming	0%	100%
Gap A MOA/ATCAA		1047.94
Montana	75%	
N. Dakota	25%	
S. Dakota	0%	
Wyoming	0%	100%
Gap B MOA/ATCAA		1210.10
Montana	72%	
N. Dakota	0%	
S. Dakota	28%	
Wyoming	0%	100%
Gap C MOA/ATCAA		3163.26
Montana	0%	
N. Dakota	10%	
S. Dakota	90%	
Wyoming	0%	100%

Table 10 Baseline Emissions (tons/year)										
	VOC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O	CO_2e
Montana	0.24	1.72	26.58	14.54	3.45	3.45	5,875.48	0.17	0.19	5,937.97
North Dakota	-	-	-	-	-	-	-	-	-	-
South Dakota	0.03	0.25	3.80	2.08	0.49	0.49	839.96	0.02	0.03	848.89
Wyoming	0.11	0.81	12.59	6.92	1.65	1.65	2,807.74	0.08	0.09	2,837.60
Total (tpy)	**0.38**	**2.78**	**42.96**	**23.53**	**5.59**	**5.59**	**9,523.18**	**0.27**	**0.31**	**9,624.45**

Table 11 Annual Emissions from the Proposed Training Alternative A (tons/year)										
	VOC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O	CO_2e
Montana	1.39	5.04	67.21	36.70	12.25	12.25	12,992.47	0.36	0.37	12,941.45
Net Change from Existing Conditions	1.15	3.32	40.63	22.16	8.80	8.80	7,116.98	0.20	0.18	7,003.48
North Dakota	0.52	2.03	27.73	15.12	4.79	4.79	5,492.65	0.15	0.18	5,492.03
Net Change from Existing Conditions	0.52	2.03	27.73	15.12	4.79	4.79	5,492.65	0.15	0.18	5,492.03
South Dakota	0.54	1.97	26.28	14.34	4.79	4.79	5,068.87	0.14	0.15	5,060.14
Net Change from Existing Conditions	0.51	1.73	22.48	12.26	4.30	4.30	4,228.91	0.12	0.12	4,211.25
Wyoming	0.54	1.08	14.15	7.74	2.67	2.67	2,686.87	0.07	0.07	2,675.02
Net Change from Existing Conditions	0.43	0.26	1.57	0.83	1.02	1.02	(120.87)	(0.00)	(0.02)	(162.57)
NEPA Significance Thresholds	100	100	100	100	100	100	N/A	N/A	N/A	N/A
Total (tpy)	**2.6**	**7.3**	**92.4**	**50.4**	**18.9**	**18.9**	**16,717.68**	**0.46**	**0.46**	**16,544.19**

Table 12 Annual Emissions from the Proposed Training Alternative B (tons/year)										
	VOC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O	CO_2e
Montana	0.81	3.05	41.12	22.45	7.32	7.32	7,950.57	0.22	0.26	8,025.01
Net Change from Existing Conditions	0.57	1.33	14.54	7.91	3.87	3.87	2,075.09	0.06	0.07	2,087.05
North Dakota	0.52	2.05	28.08	15.30	4.83	4.83	5,520.23	0.16	0.18	5,572.68
Net Change from Existing Conditions	0.52	2.05	28.08	15.30	4.83	4.83	5,520.23	0.16	0.18	5,572.68
South Dakota	0.55	1.99	26.52	14.46	4.82	4.82	5,071.12	0.14	0.16	5,118.94
Net Change from Existing Conditions	0.52	1.74	22.72	12.38	4.33	4.33	4,231.16	0.12	0.14	4,270.05
Wyoming	0.21	0.74	9.69	5.30	1.82	1.82	1,822.37	0.05	0.06	1,839.37
Net Change from Existing Conditions	0.10	(0.08)	(2.90)	(1.61)	0.17	0.17	(985.37)	(0.03)	(0.03)	(998.22)
NEPA Significance Thresholds	100	100	100	100	100	100	N/A	N/A	N/A	N/A
Total (tpy)	**1.72**	**5.04**	**62.44**	**33.98**	**13.20**	**13.20**	**10,841.11**	**0.31**	**0.35**	**10,931.55**

Table 13 Annual Emissions from the Proposed Training Alternative C (tons/year)										
	VOC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O	CO_2e
Montana	1.43	5.29	71.15	38.83	12.76	12.76	13,704.88	0.39	0.44	13,834.63
Net Change from Existing Conditions	1.19	3.58	44.57	24.29	9.30	9.30	7,829.40	0.22	0.25	7,896.66
North Dakota	0.14	0.72	10.64	5.78	1.53	1.53	2,259.21	0.06	0.07	2,280.66
Net Change from Existing Conditions	0.14	0.72	10.64	5.78	1.53	1.53	2,259.21	0.06	0.07	2,280.66
South Dakota	0.26	1.00	13.70	7.48	2.38	2.38	2,679.51	0.08	0.09	2,704.84
Net Change from Existing Conditions	0.22	0.76	9.90	5.40	1.89	1.89	1,839.55	0.05	0.06	1,855.96
Wyoming	0.32	1.14	15.20	8.31	2.80	2.80	2,883.85	0.08	0.09	2,911.15
Net Change from Existing Conditions	0.21	0.33	2.61	1.39	1.15	1.15	76.11	0.00	0.00	73.55
NEPA Significance Thresholds	100	100	100	100	100	100	N/A	N/A	N/A	N/A
Total (tpy)	**1.76**	**5.38**	**67.72**	**36.87**	**13.88**	**13.88**	**12,004.27**	**0.34**	**0.39**	**12,106.83**