APPENDIX F

Airspace Use and Predicted Noise Levels on
Existing and Proposed Military Training Routes

Military Training Route Airspace Use and Predicted Noise Levels (No Action Alternative)

MTR	Segment	Routine Operations[1]		Major Flying Exercises[1]		Military Operations Areas (MOAs)	MOA Operations (Sorties/ day)[2]	MOA L_{dnmr} (dB)[2]	Cumulative L_{dnmr} For MOA & MTR (dB)
		Sorties/ day	L_{dnmr} (dB)	Sorties/ day	L_{dnmr} (dB)				
931	A-C	0.4	< 55	0	0	NAKNEK 2	2.4	< 55	< 55
933	A-E	0.8	< 55	0	0	NAKNEK 1	4.1	< 55	< 55
	E-F	0.8	< 55	0	0	STONY A/B	23.5	< 55	< 55
	F-G	0.8	< 55	0	0	STONY A	16.9	< 55	< 55
935	A-B	0.8	< 55	0	0	YUKON 1	18.0	< 55	< 55
	B-C	1.2	< 55	0	0	NONE	-	-	-
	C-D	0.4	< 55	0	0	YUKON 1	18.0	< 55	< 55
	C-D1	0.8	< 55	0	0	YUKON 1	18.0	< 55	< 55
	D-E	1.6	< 55	0	0	NONE	-	-	-
	E-F	1.6	< 55	0	0	YUKON 1	18.0	< 55	< 55
	F-H	0.4	< 55	0	0	YUKON 1	18.0	< 55	< 55
937	A-D	8.0	< 55	0	0	NONE	-	-	-
	D-E	6.0	< 55	0	0	NONE	-	-	-
	E-F	4.0	< 55	0	0	NONE	-	-	-
	F-G	3.0	< 55	0	0	NONE	-	-	-
	E-F1	2.0	< 55	0	0	NONE	-	-	-
	F-G1	1.0	< 55	0	0	NONE	-	-	-
940	A-D	2.0	< 55	0	0	NONE	-	-	-
954	AA-A	4.3	< 55	0	0	YUKON 3/4	5.3/2.5	< 55	< 55
	A-D	4.3	< 55	0	0	YUKON 4	2.5	< 55	< 55
	D-E	4.3	< 55	0	0	YUKON 4/2	2.5/12.0	< 55	< 55
	E-G	4.3	< 55	0	0	YUKON 2	12.0	< 55	55
	G-H	4.3	< 55	0	0	YUKON 1/2	18.0/12.0	< 55	55
	H-N	4.3	< 55	0	0	YUKON 1	18.0	< 55	< 55
	N-P	4.3	< 55	0	0	YUKON 6	13.8	< 55	< 55
	M1-K1	4.3	< 55	0	0	YUKON 1	18.0	< 55	< 55
1900	A-C	4.0	< 55	0	0	NONE	-	-	-
	C-D	4.0	< 55	0	0	EIELSON	10.5	< 55	< 55
	D-E	8.0	< 55	0	0	EIELSON	10.5	< 55	< 55
	D-E1	8.0	< 55	0	0	EIELSON	10.5	< 55	< 55

MTR	Segment	Routine Operations[1]		Major Flying Exercises[1]		Military Operations Areas (MOAs)	MOA Operations (Sorties/ day)[2]	MOA L_{dnmr} (dB)[2]	Cumulative L_{dnmr} For MOA & MTR (dB)
		Sorties/ day	L_{dnmr} (dB)	Sorties/ day	L_{dnmr} (dB)				
1902	A-F	0.4	< 55	0	0	NONE	-	-	-
1905	A-C	4.0	< 55	0	0	NONE	-	-	-
	C-G	4.0	< 55	0	0	STONY A	16.9	< 55	< 55
	G-H	4.0	< 55	0	0	STONY A	16.9	< 55	< 55
	H-J	4.0	< 55	0	0	NONE	-	-	-
	J-L	4.0	< 55	0	0	GALENA	0.2	< 55	< 55
	L-M	4.0	< 55	0	0	NONE	-	-	-
	G-AH	4.0	< 55	0	0	STONY A	16.9	< 55	< 55
1909	A-B	2.0	< 55	0	0	YUKON 1	18.0	< 55	< 55
	B-C	0.4	< 55	0	0	YUKON 1	18.0	< 55	< 55
1926	A-B	1.6	< 55	140	58	BUFFALO	11.3	< 55	58.1
	B-D	1.6	< 55	140	58	BUFFALO	11.3	< 55	58.1
	B-AC	0.2	< 55	0	0	BUFFALO	11.3	< 55	< 55
1928	A-B	6.0	< 55	140	58	EIELSON	10.5	< 55	< 55

Military Training Route Airspace Use and Predicted Noise Levels (Proposed Action)

MTR	Segment	Routine Operations[3]		Major Flying Exercises[3,4]		Military Operations Areas (MOAs)	MOA Operations (Sorties/ day)[2]	MOA L_{dnmr} (dB)[2]	Cumulative L_{dnmr} For MOA & MTR (dB)
		Sorties/ day	L_{dnmr} (dB)	Sorties/ month	L_{dnmr} (dB)				
931	A-B	0.2	< 55	10	< 55	NONE	-	-	-
	B-C	0.2	< 55	10	< 55	NAKNEK 2	2.4	< 55	< 55
	C-E	0.2	< 55	10	< 55	NAKNEK 2	2.4	< 55	< 55
933	A-E	0.2	< 55	14	< 55	NAKNEK 1	4.1	< 55	< 55
	E-G	0.2	< 55	14	< 55	NONE	-	-	-
	G-H	0.2	< 55	14	< 55	STONY A	16.9	< 55	< 55
935	A-B	0.8	< 55	0	0	YUKON 1/3	23.3	< 55	< 55
	B-D	0.8	< 55	0	0	YUKON 3	5.3	< 55	< 55
	C-D	0.8	< 55	0	0	YUKON 1	18.0	< 55	< 55
	D-F	0.8	< 55	0	0	BUFFALO	11.3	< 55	< 55
	F-I	0.8	< 55	0	0	YUKON 1	18.0	< 55	< 55
937	A-G	1.4	< 55	0	0	NONE	-	-	-
	G-I	0.6	< 55	0	0	NONE	-	-	-
	G-AH	0.8	< 55	0	0	NONE	-	-	-
	C-AA	0.4	< 55	0	0	NONE	-	-	-
940	A-D	1.4	< 55	0	0	NONE	-	-	-
	D-E	1.4	< 55	0	0	YUKON 3	5.3	< 55	< 55
	E-H	1.4	< 55	0	0	YUKON 3/ BUFFALO	5.3/11.3	< 55	< 55
	H-I	0.8	< 55	0	0	BIRCH	13.9	< 55	< 55
	AA-A	0.4	< 55	0	0	NONE	-	-	-
	H-AI	0.6	< 55	0	0	NONE	-	-	-
954	AA-A	0.9	< 55	0	0	YUKON 3/4	5.3/2.5	< 55	< 55
	A-D	0.9	< 55	0	0	YUKON 4	2.5	< 55	< 55
	D-E	0.9	< 55	0	0	YUKON 4/2	2.5/12.0	< 55	< 55
	E-G	0.9	< 55	0	0	YUKON 2	12.0	< 55	55
	G-H	0.9	< 55	0	0	YUKON 1/2	18.0/12.0	< 55	55
	H-N	0.9	< 55	0	0	YUKON 1	18.0	< 55	< 55
	N-P	0.9	< 55	0	0	YUKON 6	13.8	< 55	< 55
	M1-K1	0.9	< 55	0	0	YUKON 1	18.0	< 55	< 55
1900	A-C	0.9	< 55	10	< 55	NONE	-	-	-
	C-D	0.9	< 55	10	< 55	EIELSON	10.5	< 55	< 55
	D-AE	0.9	< 55	10	< 55	EIELSON/ YUKON 1	10.5/18.0	< 55	< 55
	D-EE	0.9	< 55	10	< 55	EIELSON	10.5	< 55	< 55

MTR	Segment	Routine Operations[3]		Major Flying Exercises[3,4]		Military Operations Areas (MOAs)	MOA Operations (Sorties/ day)[2]	MOA L_{dnmr} (dB)[2]	Cumulative L_{dnmr} For MOA & MTR (dB)
		Sorties/ day	L_{dnmr} (dB)	Sorties/ month	L_{dnmr} (dB)				
1902	A-B	0.1	< 55	10	< 55	NONE	-	-	-
	B-F	0.2	< 55	10	< 55	NONE	-	-	-
	AA-B	0.1	< 55	10	< 55	NONE	-	-	-
1905	A-C	0.8	< 55	20	55.7	NONE	-	-	-
	C-E	0.8	< 55	20	55.7	STONY A	16.9	< 55	55.8
	E-G	0.8	< 55	20	55.7	NONE	-	-	-
	G-H	0.8	< 55	20	55.7	GALENA	0.2	< 55	55.8
	H-I	0.8	< 55	20	55.7	NONE	-	-	-
1909	A-B	0.8	< 55	0	0	YUKON 1	18.0	< 55	< 55
	B-C	0.8	< 55	0	0	YUKON 1	18.0	< 55	< 55
960*	A-E	0.7	< 55	10	< 55	NONE	-	-	-
	E-F	0.7	< 55	10	< 55	YUKON 6	13.8	< 55	< 55
	F-G	0.7	< 55	10	< 55	YUKON 1	18.0	< 55	< 55
970*	A-E	0.8	< 55	10	< 55	NONE	-	-	-
	E-F	0.8	< 55	10	< 55	YUKON 6	13.8	< 55	< 55
	F-H	0.8	< 55	10	< 55	YUKON 1	18.0	< 55	< 55

Notes:

[1]Operations and predicted noise levels for NAA operations on MTR 931 are taken from the Environmental Assessment of the Expansion and Upgrade of Military Training Routes, Alaska, August 1992

[2]Operations and predicted noise levels for MOA operations are taken from the *Final* Environmental Impact Statement, Alaska Military Operations Areas, August 1995

[3]Operations for proposed MTR usage provided by 11 Air Force/ 611th Air Operations Group. Major Flying Exercise (MFE) Operations are only anticipated to occur up to six times per year. Operations could occur for a maximum of a two week period. It is anticipated that no more than approximately 480 MFE sorties total would occur during any single year and that they would be distributed over MTRs 931, 933, 960, 970, 1900, 1902, and 1905. The maximum estimated MFE sorties on any single route throughout the entire year is 120 sorties along MTR 1905 with the other routes expecting a lesser number of operations. Typical aircraft involved in an MFE would be the F-15s, F-16s, and C-17s stationed in Alaska along with an assortment of various other USAF, U.S. Navy, and foreign service aircraft (e.g.: B-52, B-1, F/A-18, C-130, EA-6B, Tornado, and Jaguar).

Major Flying Exercise Operations would also be conducted in keeping with the *Alaska Military Operations Areas Environmental Impact Statement, Record of Decision* which includes the following ongoing mitigation measures:

- No MFEs during September, December, or January;
- A two week break between MFEs; and

- No MFEs the week prior to and week following the 4th of July.

[4]As Major Flying Exercises will only occur in several months, the number of sorties per route are shown as the predicted average monthly total expected.

See Appendix E for detailed noise analysis methodologies

Proposed operations normally take place Monday through Friday (except holidays) between the hours of 7:00 am and 10:00 pm.

A sortie consists of a single aircraft overflight. If two aircraft are flying together, it would be counted as two sorties

L_{dnmr} values are cumulative dose-response values and are presented for sound levels greater than 55 dB, the recommended maximum outdoor exposure level in the EPA "Levels Document" (EPA 1974). Levels below 55 dB have minimal potential impact.

* Route withdrawn from Proposed Action.

Predicted Single Event Noise Profiles for the Primary Users of the Existing and Proposed Military Training Route Structure

Figure 1 Maximum A-weighted Sound Level for F-15

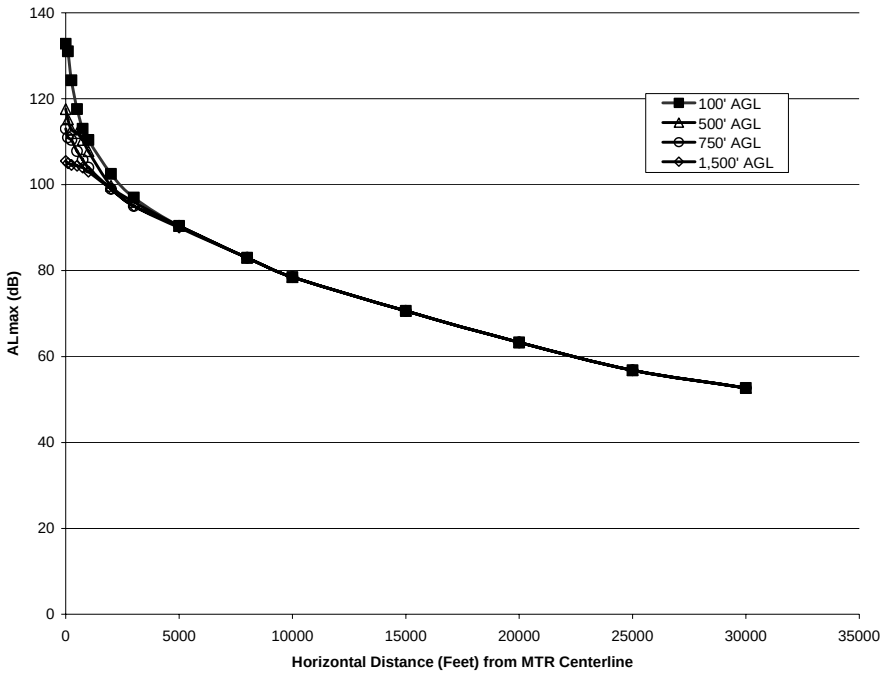

Figure 2 Sound Exposure Level for F-15

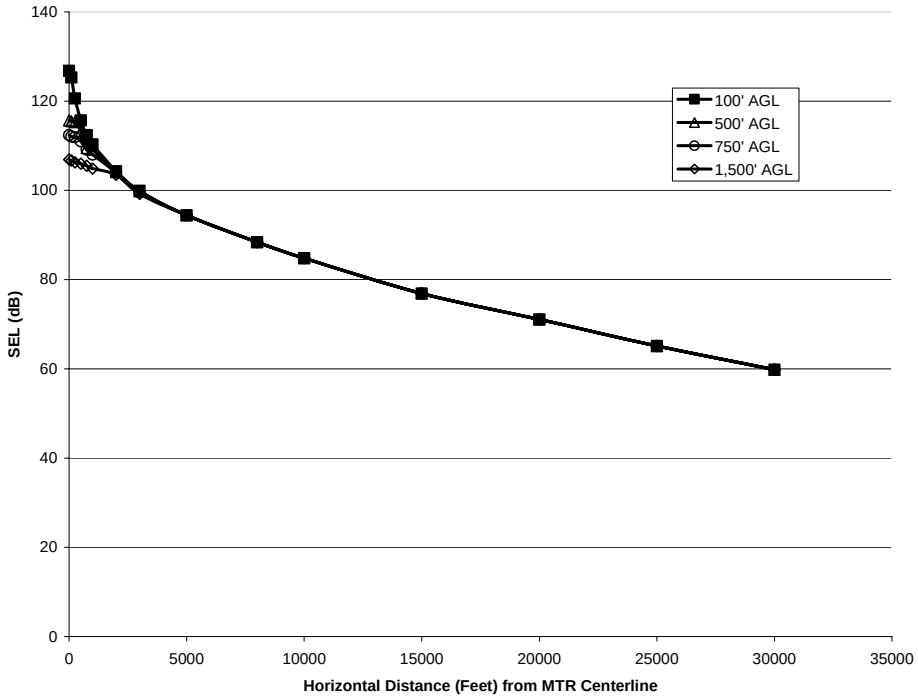

Figure 3 Maximum A-weighted Sound Level for F-16

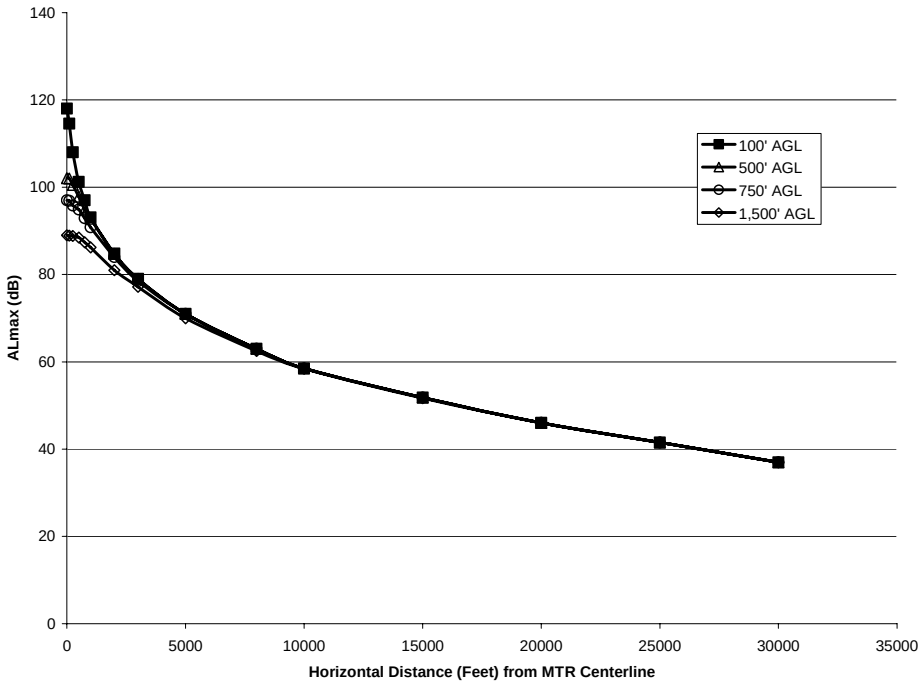

Figure 4 Sound Exposure Level for F-16

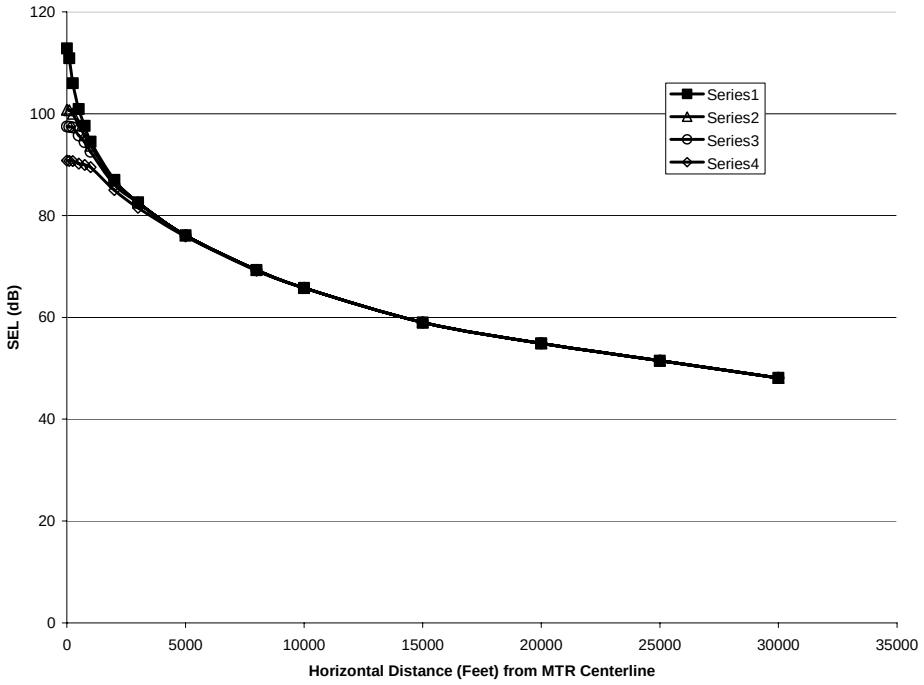

Figure 5 Maximum A-weighted Sound Level for C-17

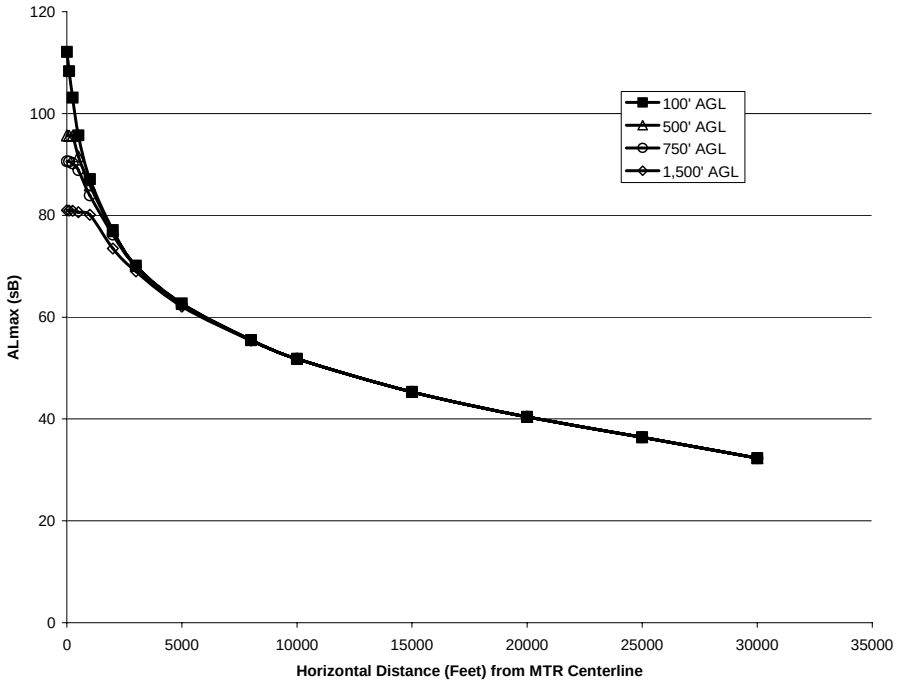
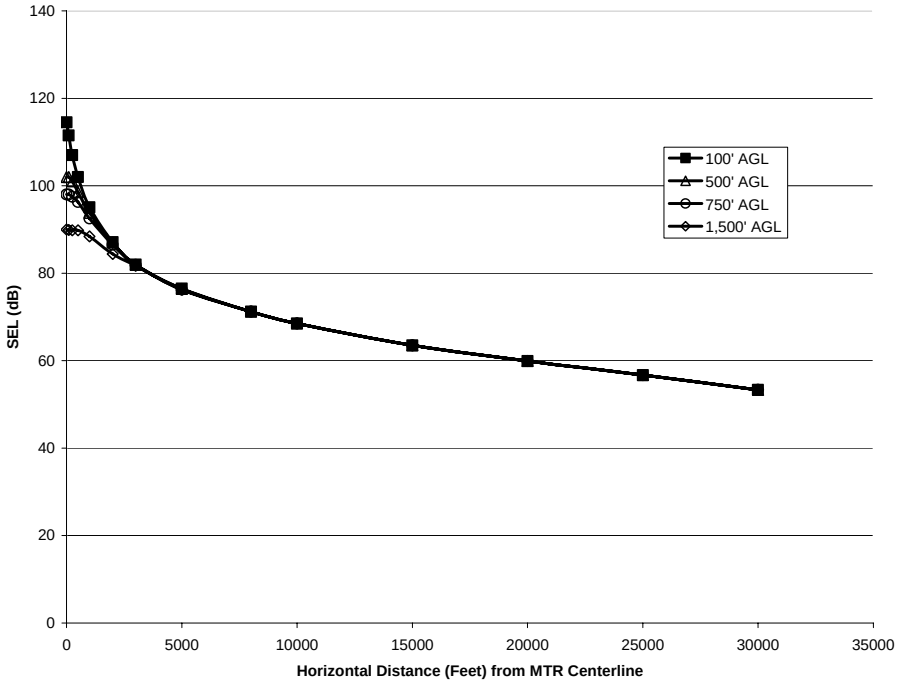
Figure 6 Sound Exposure Level for C-17