

AFOEHL REPORT 90-026EI00118BNA



AD-A220 535

**A/F32T-9 Large Turbo Fan Engine Enclosed
Noise Suppressor System (T-9 NSS), Exterior
Near-Field and Interior Noise,
McConnell AFB KS**

ALI Y. ALI, Capt, USAF, BSC

February 1990

Final Report



Distribution is unlimited; approved for public release

**AF Occupational and Environmental Health Laboratory (AFSC)
Human Systems Division
Brooks Air Force Base, Texas 78235-5501**

NOTICES

When Government drawings, specifications, or other data are used for any purpose other than a definitely related Government procurement operation, the Government incurs no responsibility or any other obligation whatsoever. The fact that the Government may have formulated, or in any way supplied the drawing, specifications, or other data, is not to be regarded by implication, or otherwise, as in any manner licensing the holder or any other person or corporation; or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

The mention of trade names or commercial products in this publication is for illustration purposes and does not constitute endorsement or recommendation for use by the United States Air Force.

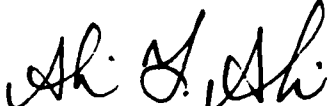
The Public Affairs Office has reviewed this report, and it is releasable to the National Technical Information Service, where it will be available for the general public, including foreign nations.

This report has been reviewed and is approved for publication.

Air Force installations may direct requests for copies of this report to: Air Force Occupational and Environmental Health Laboratory (AFOEHL) Library, Brooks AFB TX 78235-5501.

Other Government agencies and their contractors registered with DTIC should direct requests for copies of this report to: Defense Technical Information Center (DTIC), Cameron Station, Alexandria VA 22304-6145.

Non-Government agencies may purchase copies of this report from: National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield VA 22161.


ALI Y. ALI, Capt, USAF, BSC
Consultant, Industrial Hygiene


DENNIS R. SKALKA, Lt Col, USAF, BSC
Chief, Health Surveillance Division

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE February 1990		3. REPORT TYPE AND DATES COVERED Final	
4. TITLE AND SUBTITLE A/F32T-9 Large Turbo Fan Engine Enclosed Noise Suppressor System (T-9 NSS), Exterior Near-Field and Interior Noise, McConnell AFB KS				5. FUNDING NUMBERS	
6. AUTHOR(S) Ali Y. Ali, Capt, USAF, BSC					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) AF Occupational and Environmental Health Laboratory Brooks AFB TX 78235-5501				8. PERFORMING ORGANIZATION REPORT NUMBER AFOEHL Report 90-026EI00118BNA	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Same as B1k 7				10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES					
12a. DISTRIBUTION / AVAILABILITY STATEMENT Statement A. Unlimited, approved for public release				12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) Previous reports on the A/F32T-9 Large Turbo Fan Engine Enclosed Noise Suppressor System (T-9 NSS) addressed environmental noise for acceptance test purposes only. This report presents the first article test results for interior and near-field exterior occupational noise exposure during ground runup tests of the following engines: F100, F101-GE-102, F108-CF-100, J57-59W, J85-5, TF30-P7, TF33-P3 and the TF41-A1.					
14. SUBJECT TERMS A/F32T-9 Jet Engine Noise Interior Noise, T-9 NSS Engine Test Cell; Noise Suppressor; McConnell Ali Occupational Noise Exterior Near-Field Noise				15. NUMBER OF PAGES 175	
				16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT none		

(This page left blank)

ACKNOWLEDGMENT

This project was completed with the assistance of the following AFDEHL survey team members: Lt Col Kenneth Tally, Lt Col Glenn Gaudet, Maj John Ellis, Maj Randall Ostraat, Maj Denton Crotchett, Maj Terry Fairman, Capt Jeffery Jenkins, Capt Isaac Atkins, Capt Frank Liebhaber, Mr Jimmy Langwell, MSgt Abel De La Rosa, MSgt James Lanoue, MSgt John Randall, SSgt Michael Lazenby, SSgt Shelly Shelin, Sgt Kathy Skjod, Sgt Paul Lay, A1C Ty Farris, and A1C Donald Johnson. I also gratefully acknowledge the assistance of Maj John Seibert and Maj Terry Fairman, the original project officer and survey team chief, from AFDEHL Noise Hazards Function during data reduction and analysis.

Accession For	
NTIS CRA&I	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Code	
Dist	Avail and/or Special
A-1	



CONTENTS

	Page
DD Form 1473	i
Acknowledgment	iii
Appendix Tables	v
I. INTRODUCTION	1
II. DISCUSSION	1
A. Measurements	1
B. Results	3
C. Observations	3
III. CONCLUSION	4
IV. RECOMMENDATION	4
REFERENCES	7
APPENDIX	
A Exterior Near-Field and Interior Noise on the F100 Engine	9
B Exterior Near-Field and Interior Noise on the F101 Engine	33
C Exterior Near-Field and Interior Noise on the F108 Engine	53
D Exterior Near-Field and Interior Noise on the J57 Engine	71
E Exterior Near-Field and Interior Noise on the J85-5 Engine	89
F Exterior Near-Field and Interior Noise on the TF30-P7 Engine	107
G Exterior Near-Field and Interior Noise on the TF33-P3 Engine	131
H Exterior Near-Field and Interior Noise on the TF41-A1 Engine	149
Distribution List	167

APPENDIX TABLES

	Page
APPENDIX A: F100-PW-(100,200) Engine Noise in the A/F32T-9 NSS	9
A-1 Engine Power Conditions	11
A-2 Idle Power Exterior Near-Field Noise at Main Door	12
A-3 Idle Power Exterior Near-Field Noise at Door 2	13
A-4 Idle Power Exterior Near-Field Noise at View Window	14
A-5 Idle Power Exterior Near-Field Noise at Door 4	15
A-6 Intermediate Power Exterior Near-Field Noise at Main Door	16
A-7 Intermediate Power Exterior Near-Field Noise at Door 2	17
A-8 Intermediate Power Exterior Near-Field Noise at View Window	18
A-9 Intermediate Power Exterior Near-Field Noise at Door 4	19
A-10 Military Power Exterior Near-Field Noise at Main Door	20
A-11 Military Power Exterior Near-Field Noise at Door 2	21
A-12 Military Power Exterior Near-Field Noise at View Window	22
A-13 Military Power Exterior Near-Field Noise at Door 4	23
A-14 Afterburner Power Exterior Near-Field Noise at Main Door	24
A-15 Afterburner Power Exterior Near-Field Noise at Door 2	25
A-16 Afterburner Power Exterior Near-Field Noise at View Window	26
A-17 Afterburner Power Exterior Near-Field Noise at Door 4	27
A-18 Idle Power Average Interior Noise at Intake and Exhaust (I&E)	28
A-19 Intermediate Power Average Interior Noise at Intake and Exhaust (I&E)	29
A-20 Military Power Average Interior Noise at Intake and Exhaust (I&E)	30
A-21 Afterburner Power Average Interior Noise at Intake and Exhaust (I&E)	31
APPENDIX B: F101-GE-102 Engine Noise in the A/F32T-9 NSS	33
B-1 Engine Power Conditions	35
B-2 Idle Power Exterior Near-Field Noise at Main Door	36
B-3 Idle Power Exterior Near-Field Noise at Door 2	37
B-4 Idle Power Exterior Near-Field Noise at View Window	38
B-5 Idle Power Exterior Near-Field Noise at Door 4	39
B-6 Intermediate Power Exterior Near-Field Noise at Main Door	40
B-7 Intermediate Power Exterior Near-Field Noise at Door 2	41
B-8 Intermediate Power Exterior Near-Field Noise at View Window	42
B-9 Intermediate Power Exterior Near-Field Noise at Door 4	43
B-10 Afterburner Power Exterior Near-Field Noise at Main Door	44
B-11 Afterburner Power Exterior Near-Field Noise at Door 2	45
B-12 Afterburner Power Exterior Near-Field Noise at View Window	46
B-13 Afterburner Power Exterior Near-Field Noise at Door 4	47
B-14 Idle Power Average Interior Noise at the Middle Side (M)	48
B-15 12500 RPM Power Average Interior Noise at the Middle Side (H)	49
B-16 Intermediate Power Average Interior Noise at the Middle Side (M)	50
B-17 Afterburner Power Average Interior Noise at the Middle Side (M)	51

	Page
APPENDIX C: F108-CF-100 Engine Noise in the A/F32T-9 NSS	53
C-1 Engine Power Conditions	55
C-2 Flight Idle Power Exterior Near-Field Noise at Main Door	56
C-3 Flight Idle Power Exterior Near-Field Noise at Door 2	57
C-4 Flight Idle Power Exterior Near-Field Noise at View Window	58
C-5 Flight Idle Power Exterior Near-Field Noise at Door 4	59
C-6 Maximum Continuous Power Exterior Near-Field Noise at Main Door	60
C-7 Maximum Continuous Power Exterior Near-Field Noise at Door 2	61
C-8 Maximum Continuous Power Exterior Near-Field Noise at View Window	62
C-9 Maximum Continuous Power Exterior Near-Field Noise at Door 4	63
C-10 Takeoff Power Exterior Near-Field Noise at Main Door	64
C-11 Takeoff Power Exterior Near-Field Noise at Door 2	65
C-12 Takeoff Power Exterior Near-Field Noise at View Window	66
C-13 Takeoff Power Exterior Near-Field Noise at Door 4	67
C-14 Flight Idle Power Average Interior Noise at the Intake, Middle Side and Exhaust (I, M&E)	68
C-15 Maximum Continuous Power Average Interior Noise at the Intake, Middle Side and Exhaust (I, M&E)	69
C-16 Takeoff Power Average Interior Noise at the Intake, Middle Side and Exhaust (I, M&E)	70
APPENDIX D: J57-59W Engine Noise in the A/F32T-9 NSS	71
D-1 Engine Power Conditions	73
D-2 Idle Power Exterior Near-Field Noise at Main Door	74
D-3 Idle Power Exterior Near-Field Noise at Door 2	75
D-4 Idle Power Exterior Near-Field Noise at View Window	76
D-5 Idle Power Exterior Near-Field Noise at Door 4	77
D-6 80% RPM Power Exterior Near-Field Noise at Main Door	78
D-7 80% RPM Power Exterior Near-Field Noise at Door 2	79
D-8 80% RPM Power Exterior Near-Field Noise at View Window	80
D-9 80% RPM Power Exterior Near-Field Noise at Door 4	81
D-10 Military Power Exterior Near-Field Noise at Main Door	82
D-11 Military Power Exterior Near-Field Noise at Door 2	83
D-12 Military Power Exterior Near-Field Noise at View Window	84
D-13 Military Power Exterior Near-Field Noise at Door 4	85
D-14 Idle Power Average Interior Noise at the Intake, Middle Side and Exhaust (I, M&E)	86
D-15 Intermediate Power Average Interior Noise at the Intake, Middle Side and Exhaust (I, M&E)	87
D-16 Military Power Average Interior Noise at the Intake, Middle Side and Exhaust (I, M&E)	88
APPENDIX E: J85-5 Engine Noise in the A/F32T-9 NSS	89
E-1 Engine Power Conditions	91
E-2 Idle Power Exterior Near-Field Noise at Main Door	92

	Page
E-3 Idle Power Exterior Near-Field Noise at Door 2	93
E-4 Idle Power Exterior Near-Field Noise at View Window	94
E-5 Idle Power Exterior Near-Field Noise at Door 4	95
E-6 Military Power Exterior Near-Field Noise at Main Door	96
E-7 Military Power Exterior Near-Field Noise at Door 2	97
E-8 Military Power Exterior Near-Field Noise at View Window	98
E-9 Military Power Exterior Near-Field Noise at Door 4	99
E-10 Afterburner Power Exterior Near-Field Noise at Main Door	100
E-11 Afterburner Power Exterior Near-Field Noise at Door 2	101
E-12 Afterburner Power Exterior Near-Field Noise at View Window	102
E-13 Afterburner Power Exterior Near-Field Noise at Door 4	103
E-14 Idle Power Average Interior Noise at the Intake and Exhaust (I&E)	104
E-15 Military Power Average Interior Noise at the Intake and Exhaust (I&E)	105
E-16 Interior Noise at Afterburner Power Average at the Intake and Exhaust (I&E)	106
APPENDIX F: TF30-P7 Engine Noise in the A/F32T-9 NSS	107
F-1 Engine Power Conditions	109
F-2 Idle Power Exterior Near-Field Noise at Main Door	110
F-3 Idle Power Exterior Near-Field Noise at Door 2	111
F-4 Idle Power Exterior Near-Field Noise at View Window	112
F-5 Idle Power Exterior Near-Field Noise at Door 4	113
F-6 80% Power Exterior Near-Field Noise at Main Door	114
F-7 80% Power Exterior Near-Field Noise at Door 2	115
F-8 80% Power Exterior Near-Field Noise at View Window	116
F-9 80% Power Exterior Near-Field Noise at Door 4	117
F-10 Military Power Exterior Near-Field Noise at Main Door	118
F-11 Military Power Exterior Near-Field Noise at Door 2	119
F-12 Military Power Exterior Near-Field Noise at View Window	120
F-13 Military Power Exterior Near-Field Noise at Door 4	121
F-14 Afterburner Power Exterior Near-Field Noise at Main Door	122
F-15 Afterburner Power Exterior Near-Field Noise at Door 2	123
F-16 Afterburner Power Exterior Near-Field Noise at View Window	124
F-17 Afterburner Power Exterior Near-Field Noise at Door 4	125
F-18 Idle Power Average Interior Noise at the Intake, Middle Side and Exhaust (I, M&E)	126
F-19 80% Power Average Interior Noise at the Intake, Middle Side and Exhaust (I, M&E)	127
F-20 Military Power Average Interior Noise at the Intake, Middle Side and Exhaust (I, M&E)	128
F-21 Afterburner Power Average Interior Noise at the Intake, Middle Side and Exhaust (I, M&E)	129

	Page
APPENDIX G: TF33-P3 Engine Noise in the A/F32T-9 NSS	131
G-1 Engine Power Conditions	133
G-2 Idle Power Exterior Near-Field Noise at Main Door	134
G-3 Idle Power Exterior Near-Field Noise at Door 2	135
G-4 Idle Power Exterior Near-Field Noise at View Window	136
G-5 Idle Power Exterior Near-Field Noise at Door 4	137
G-6 Intermediate (80%) Power Exterior Near-Field Noise at Main Door	138
G-7 Intermediate (80%) Power Exterior Near-Field Noise at Door 2	139
G-8 Intermediate (80%) Power Exterior Near-Field Noise at View Window	140
G-9 Intermediate (80%) Power Exterior Near-Field Noise at Door 4	141
G-10 Military Power Exterior Near-Field Noise at Main Door	142
G-11 Military Power Exterior Near-Field Noise at Door 2	143
G-12 Military Power Exterior Near-Field Noise at View Window	144
G-13 Military Power Exterior Near-Field Noise at Door 4	145
G-14 Idle Power Average Interior Noise at the Intake, Middle Side and Exhaust (I, M&E)	146
G-15 Intermediate (80%) Power Average Interior Noise at the Intake, Middle side and Exhaust (I, M&E)	147
G-16 Military Power Average Interior Noise at the Intake, Middle side and Exhaust (I, M&E)	148
APPENDIX H: TF41-A1 Engine Noise in the A/F32T-9 NSS	149
H-1 Engine Power Conditions	151
H-2 Idle Power Exterior Near-Field Noise at Main Door	152
H-3 Idle Power Exterior Near-Field Noise at Door 2	153
H-4 Idle Power Exterior Near-Field Noise at View Window	154
H-5 Idle Power Exterior Near-Field Noise at Power Door 4	155
H-6 Intermediate (80%) Power Exterior Near-Field Noise at Main Door	156
H-7 Intermediate (80%) Power Exterior Near-Field Noise at Door 2	157
H-8 Intermediate (80%) Power Exterior Near-Field Noise at View Window	158
H-9 Intermediate (80%) Power Exterior Near-Field Noise at Door 4	159
H-10 Military Power Exterior Near-Field Noise at Main Door	160
H-11 Military Power Exterior Near-Field Noise at Door 2	161
H-12 Military Power Exterior Near-Field Noise at View Window	162
H-13 Military Power Exterior Near-Field Noise at Door 4	163
H-14 Idle Power Average Interior Noise at the Intake and Exhaust (I&E)	164
H-15 Intermediate (80%) Power Average Interior Noise at the Intake and Exhaust (I&E)	165
H-16 Military Power Average Interior Noise at the Intake and Exhaust (I&E)	166

I. INTRODUCTION

A. Purpose: This report provides exterior near-field and interior noise level data on the A/F32T-9 Large Turbo Fan Engine Enclosed Noise Suppressor System (T-9 NSS), measured at McConnell AFB KS, 3-11 Mar 1987, during first article testing. The report provides the required data for assessing the extent of occupational noise exposure.

B. Problem: Previous technical reports on the T-9 NSS addressed only the far-field noise for acceptance purposes, which is useful to evaluate the impact on the community noise environment. Information on exterior near-field and interior noise for the T-9 NSS was not immediately available to allow MAJCOM and Base Bioenvironmental Engineers to evaluate the extent of occupational noise exposure.

C. Scope: This report provides exterior near-field and interior noise data during engine ground runup operations and testing inside the T-9 NSS with the following aircraft engines: F100, F101-GE-102, F108-CF-100, J57-59W, J85-5, TF30-P7, TF33-P3, and TF41-A1. The F100 engine for the F-15 (F100-PW-100) and the F-16 (F100-PW-200) aircraft are the same and listed as F100.

1. This report follows the objectives of the USAF Bioenvironmental Noise Data Handbooks established by the Armstrong Aerospace Medical Research Laboratory (AAMRL) under the report number AMRL-TR-75-50.

2. Volume 1 of the USAF Bioenvironmental Noise Data Handbook series defines the purpose, measurement procedures, instrumentation, definitions, equations, etc.

II. DISCUSSION

A. Measurement

1. AFOEHL measured exterior near-field and interior noise levels during approximately 2 hour engine test periods while collecting the far field noise data for each engine operating inside the T-9 NSS. Figure 1 shows each measurement location and its corresponding symbol used for reporting. Data were collected for the normal test power settings inside and outside the T-9 NSS structure.

2. Interior noise data were measured at three locations. These locations are the intake side (I), the middle side (M), and the exhaust side (E) of the engine inside the T-9 NSS. Since data for the three locations at some power settings and for some engines were not available, interior noise data are presented as an average of either one, two or three locations at each power setting.

3. Exterior Near-Field noise data were measured at four locations: the main door, door 2, the view window, and door 4.

4. Two channel (low and high frequency response) portable tape recording systems were used to record noise samples at each location.

A/F32T-9 NSS FLOOR PLAN

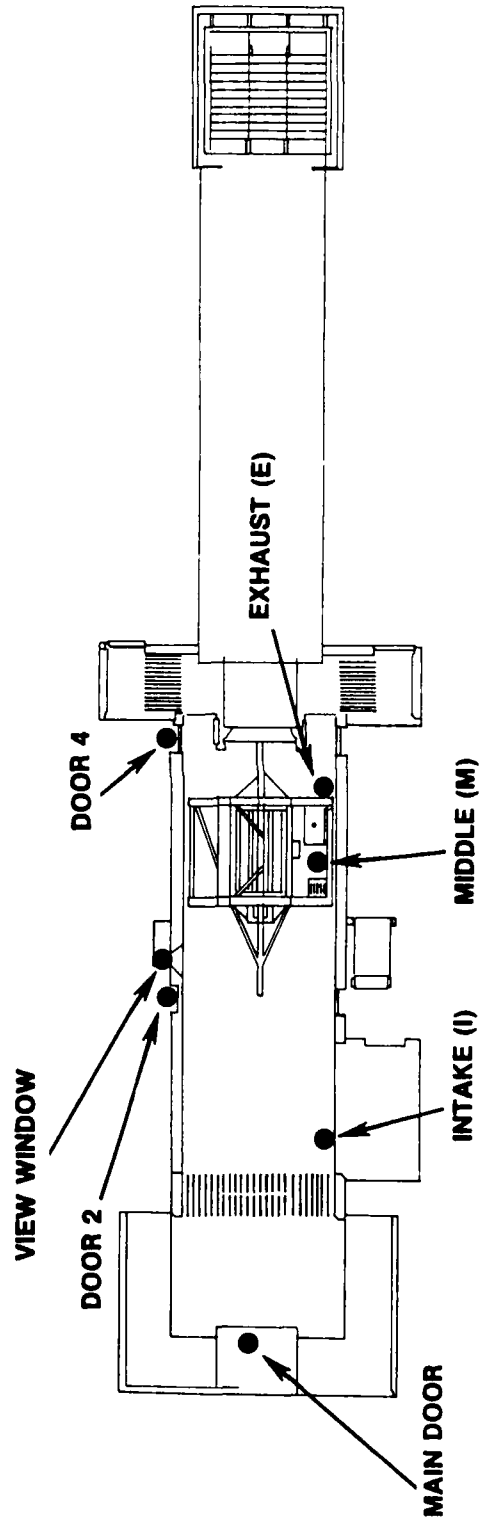


Figure 1. INTERIOR AND EXTERIOR NEAR—FIELD NOISE SAMPLING LOCATIONS

Exterior near-field noise samples were collected by attaching the microphone to a hand held pole. The microphone was pointed perpendicular to the source enclosure outer surface at each location. Then the microphone was vertically scanned over the source enclosure from 0.5 to 3 meters above the ground for a period of 10 to 15 seconds during data acquisition. Interior noise data were collected by a fixed height microphone secured in place at each measurement location at approximately ear level. Collected samples were then screened, analyzed, and time-integrated by AFOEHL to derive the root-mean square (RMS) sound pressure level. Since two separate channels were used for each recording system, low and high frequency data were merged to cover the whole spectrum.

5. Analysis: Final noise analysis required extensive data reduction due to the required manual merging of low frequency spectrum (3.5 to 63 Hz) generated by the AAMRL analysis program into the high frequency spectrum generated by AFOEHL analysis program. The interior noise samples from all locations at each power setting for the engine were averaged to provide a single representative noise level for interior noise at that power setting. The averaging of interior noise provided a better representation of interior noise level for purposes of noise exposure assessment.

B. Results

1. Table 1 presents a summary of the A-Weighted Overall Sound Level (OASLA), in dB(A), for each of the eight engines measured at McConnell AFB, at each location and power setting. The three highest measured noise levels at each location for all of the eight tested engines are annotated by an asterisk (*).

2. Appendix A through H presents detailed 1/3 octave and full octave band sound levels for the eight measured engines. These sound levels include the Un-Weighted Sound Pressure Level, A-Weighted Sound Level, the C-Weighted Sound Level, their Overall values, and the Overall C minus A value for each test setting.

C. Observations

1. Interior Noise: Interior Overall A-Weighted Sound Levels for the tested engines ranged between 114.3 dB(A) (for the TF41 engine at idle power) up to 153.7 dB(A) (for the F101 engine at afterburner power). In general, highest measured noise levels for all engines were at afterburner power except for the F100 and the J85 engines which measured 136.5 and 151.1 dB(A) respectively at military power. The highest measured three interior noise levels for the tested engines were 136.5 dB(A) for the F100 at military power, 151.1 dB(A) for the J85 at military power, and 153.7 dB(A) for the F101 at afterburner power.

2. Exterior Near-Field Noise:

a. In general, the highest exterior noise levels were measured at door 2. Depending on the engine type and power setting, the second highest noise levels were observed at either the main door or the view window. The lowest noise levels were observed at door 4.

b. The three highest exterior near-field noise levels were 110.5 dB(A) for the F100 engine, 110.5 dB(A) for the F101 engine, and 112.6 dB(A) for the J85 engine. These levels were observed at door 2 while each engine was being tested at afterburner power.

III. CONCLUSIONS

A. Maximum measured exterior near-field sound level was 112.6 dB(A) at door 2 with the J85 at afterburner power.

B. Measured interior sound levels were above 115 db(A) for all tested engines except at idle power for the TF33 (114.4 dB(A)) and the TF41 (114.3 dB(A)).

C. The F100, F101, and the J85 are the noisiest of the eight tested engines.

IV. RECOMMENDATION

Since each base has unique requirements for the total number of engines, their types, their testing duration and combination(s), recommend the base bioenvironmental engineer use the octave band data provided in the appendixes to evaluate and select the proper type or combination of hearing protection device(s) that provides the maximum noise attenuation to meet their unique needs.

TABLE 1: T9-NSS EXTERIOR NEAR-FIELD AND INTERIOR OVERALL SOUND LEVELS, A-WEIGHTED (OASLA)

ENGINE/ MANUFACTURER & AIRCRAFT	ENGINE POWER	LOCATION				
		INTERIOR NOISE**	EXTERIOR NEAR FIELD NOISE			
			MAIN DOOR	DOOR 2	VIEW WINDOW	DOOR 4
F100-PW-100 F100-PW-200 BY P&W F-15, F-16	IDLE	118.2	89.9	92.1	93.9	75.1
	INTERMEDIATE	122.8	92.1	92.4	85.2	87.2
	MILITARY	136.5*	95.7	102.5	97.0	95.7
	AFTERBURNER	136.0	102.2*	110.5*	105.3*	107.1*
F101-GE-102 BY GE B1-B	IDLE	129.3	83.4	90.1	79.1	76.3
	12500 RPM	139.7	N/A	N/A	N/A	N/A
	INTERMEDIATE	146.7	92.7	99.5	92.0	94.0
	AFTERBURNER	153.7*	100.2*	110.5*	103.0*	108.2*
F108-CF-100 BY CFMI KC-135R	IDLE	121.5	84.6	71.4	67.1	68.5
	MAX. CONTINUOUS	134.5	96.9	86.8	82.9	79.0
	TAKE-OFF	134.6	97.1	87.3	82.6	79.5
J57-59W BY P&W KC-135A	IDLE	119.8	86.1	98.5	87.7	79.7
	80% RPM	126.3	94.7	104.5	96.2	86.1
	MILITARY	133.6	101.1*	109.7	102.2	101.9

* Values Represent the Highest three Noise Levels Measured at Each Location During the Survey of all tested Engines.

** Average of all interior noise measurements.

Notes: P&W = Pratt & Whitney, GE = General Electric, CFMI = CFM International (a joint between General Electric and SNECMA from France).

TABLE 1 CONTINUED

ENGINE/ MANUFACTURER & AIRCRAFT	ENGINE POWER SETTING	LOCATION				
		INTERIOR NOISE**	EXTERIOR NEAR FIELD NOISE			
			MAIN DOOR	DOOR 2	VIEW WINDOW	DOOR 4
J85-5 BY GE F-5	IDLE	127.6	88.7	81.6	74.5	67.3
	MILITARY	151.1*	95.7	109.1	99.2	104.0
	AFTERBURNER	146.3	99.3	112.6*	105.1*	109.2*
TF30-P7 BY P&W FB-111	IDLE	117.1	85.5	89.4	80.2	70.4
	80% RPM	118.6	94.6	96.5	84.2	76.7
	MILITARY	121.6	91.6	99.5	92.6	89.0
	AFTERBURNER	139.1	96.9	106.7	95.2	98.8
TF33-P3 BY P&W B52-H	IDLE	114.4	79.5	93.5	83.1	80.2
	INTERMEDIATE	128.6	96.8	107.0	96.6	90.0
	MILITARY	134.2	98.9	104.2	94.4	95.3
TF41-A1 BY ALLISON A-7	IDLE	114.3	78.5	91.1	82.1	73.7
	INTERMEDIATE	123.8	88.3	96.4	87.9	82.2
	MILITARY	131.4	96.6	109.2	101.1	99.0

* Values Represent the Highest three Noise Levels Measured at Each Location During the Survey of all tested Engines.

** Average of all interior noise measurements.

Notes: P&W = Pratt & Whitney, GE = General Electric, CFMI = CFM International (a joint between General Electric and SNECMA from France).

REFERENCES

1. AFR 161-35, Hazardous Noise Exposure (9 April 1982)
2. Ali, Ali Y., 1Lt, USAF, BSC, First Article Noise Survey of The A/F32T-9 Large Turbo Fan Engine Enclosed Noise Suppressor System, Far Field Noise, Ellsworth AFB SD, USAFOEHL Report 88-018EH0060ANA, USAF Occupational and Environmental Health Laboratory, Human Systems Division (AFSC), Brooks AFB TX (1987)
3. Cole, John N., USAF Bioenvironmental Noise Data Handbook Volume 1: Organization Content And Application, AMRL-TR-75-50 (1), Armstrong Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, Ohio (1975)
4. Fairman, Terry M., Capt, USAF, BSC, First Article Noise Survey of The A/F32T-9 Large Turbo Fan Engine Enclosed Noise Suppressor System, Far Field Noise, McConnell AFB KS, USAFOEHL Report 87-068EH0118ENA, USAF Occupational and Environmental Health Laboratory, Human Systems Division (AFSC), Brooks AFB TX (1987)
5. Fairman, Terry M., Capt, and J. C. Jenkins, Capt, USAF, BSC, First Article Test Noise Survey of The A/F32T-9 Large Turbo Fan Engine Enclosed Noise Suppressor System, Sky Harbor IAP, Phoenix AZ, USAFOEHL Report 87-082EH0186FNA, USAF Occupational and Environmental Health Laboratory, Human Systems Division (AFSC), Brooks AFB TX (1987)
6. Jenkins, Jeffery C., Capt, USAF, BSC, Vibration In The PMEL And Fire Station Buildings During Engine Tests In The T-9 Noise Suppressor System, McConnell AFB KS, USAFOEHL Report 88-80EH0118FVB, USAF Occupational and Environmental Health Laboratory, Human Systems Division (AFSC), Brooks AFB TX (1988)

(This page left blank)

APPENDIX A
Exterior Near-Field and Interior Noise on the
F100 Engine

(This page left blank)

TABLE A-1

**POWER CONDITIONS FOR EXTERIOR NEAR-FIELD AND
INTERIOR NOISE MEASUREMENTS FOR THE F100-PW-(100,200) ENGINE**

<u>POWER</u>	<u>%RPM</u>
Idle	66.7
80 % (Intermediate)	80.0
Military	90.7
Afterburner	90.6

**Table A-2: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT IDLE POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	79		0		0	
4	80	86.3	0	4.8	0	4.8
5	84		0		0	
6.3	83		0		0	
8	88	89.6	0	15.8	0	71.7
10	86		15.6		71.7	
12.5	83		19.6		71.8	
16	79	86.4	22.3	32.2	70.5	78.1
20	82		31.5		75.8	
25	81		36.3		76.6	
31.5	78	83.3	38.6	43.1	75	79.7
40	74		39.4		72	
50	72		41.8		70.7	
63	72	76.6	45.8	51.2	71.2	75.7
80	71.4		48.9		70.9	
100	72.8		53.7		72.5	
125	66.2	74.1	50.1	56.5	66	73.8
160	63.8		50.4		63.7	
200	64		53.1		64	
250	61.3	67.1	52.7	58.2	61.3	67.1
315	60.9		54.3		60.9	
400	59.8		55		59.8	
500	60.8	64.8	57.6	61.5	60.8	64.8
630	59.2		57.3		59.2	
800	57.6		56.8		57.6	
1,000	57	62.7	57	62.7	57	62.7
1,250	58.9		59.5		58.9	
1,600	63.7		64.7		63.6	
2,000	62.6	84.4	63.8	85.7	62.4	84.1
2,500	84.3		85.6		84	
3,150	79.2		80.4		78.7	
4,000	83.4	85.9	84.4	86.9	82.6	85.1
5,000	79.6		80.1		78.3	
6,300	78.2		78.1		76.2	
8,000	76.9	81	75.8	80.4	73.9	78.5
10,000	70.9		68.4		66.5	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 95 dB OASLA = 89.9 dB(A)

OASLC = 89.5 dB(C) C-A = -.4 dB

**Table A-3: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT IDLE POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	77		0		0	
4	73	80.4	0	4.8	0	4.8
5	76		0		0	
6.3	75		0		0	
8	78	81.6	0	8.2	0	62.7
10	77		6.6		62.7	
12.5	77		13.6		65.8	
16	80	84.4	23.3	31.3	71.5	76.8
20	81		30.5		74.8	
25	78		33.3		73.6	
31.5	76	81.1	36.6	41.9	73	77.7
40	74		39.4		72	
50	70		39.8		68.7	
63	71.6	76.1	45.4	51.3	70.8	75.3
80	72.1		49.6		71.6	
100	71.6		52.5		71.3	
125	70.6	75.5	54.5	59.5	70.4	75.3
160	69.7		56.3		69.6	
200	71		60.1		71	
250	69.5	75.6	60.9	67.5	69.5	75.6
315	71.8		65.2		71.8	
400	69.4		64.6		69.4	
500	67.6	72.8	64.4	69.4	67.6	72.8
630	66.8		64.9		66.8	
800	66.8		66		66.8	
1,000	68.9	75.6	68.9	75.9	68.9	75.6
1,250	73.7		74.3		73.7	
1,600	69.8		70.8		69.7	
2,000	70.2	88.7	71.4	90	70	88.4
2,500	88.6		89.9		88.3	
3,150	84.4		85.6		83.9	
4,000	80.4	86.2	81.4	87.3	79.6	85.5
5,000	74.7		75.2		73.4	
6,300	68.5		68.4		66.5	
8,000	68.3	72.8	67.2	71.8	65.3	69.9
10,000	67.1		64.6		62.7	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 93 dB OASLA = 92.1 dB(A)

OASLC = 91.2 dB(C) C-A = -.9 dB

**Table A-4: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT IDLE POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	72		0		0	
4	68	76.7	0	4.8	0	4.8
5	74		0		0	
6.3	76		0		0	
8	80	81.9	0	8.2	0	62.7
10	77		6.6		62.7	
12.5	77		13.6		65.8	
16	80	85.4	23.3	33	71.5	78.2
20	83		32.5		76.8	
25	82		37.3		77.6	
31.5	77	83.3	37.6	41.3	74	79.4
40	68.3		33.7		66.3	
50	70.5		40.3		69.2	
63	70	74	43.8	47.5	69.2	73
80	65.8		43.3		65.3	
100	66.7		47.6		66.4	
125	60.4	68.7	44.3	52	60.2	68.4
160	62.1		48.7		62	
200	63		52.1		63	
250	59.4	67	50.8	58.8	59.4	67
315	63.4		56.8		63.4	
400	65.6		60.8		65.6	
500	68.8	72.3	65.6	69.3	68.8	72.3
630	67.5		65.6		67.5	
800	67.4		66.6		67.4	
1,000	70.1	75.4	70.1	75.6	70.1	75.4
1,250	72.8		73.4		72.8	
1,600	68.8		69.8		68.7	
2,000	72.6	91.4	73.8	92.7	72.4	91.1
2,500	91.3		92.6		91	
3,150	83.9		85.1		83.4	
4,000	81.8	86.3	82.8	87.4	81	85.6
5,000	74.3		74.8		73	
6,300	70.5		70.4		68.5	
8,000	72.4	76.5	71.3	75.2	69.4	73.3
10,000	72		69.5		67.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 94.4 dB OASLA = 93.9 dB(A)

OASLC = 92.8 dB(C) C-A = -1.1 dB

**Table A-5: T9NSS EXTERIOR NEAR FIELED NOISE
WITH F100 ENGINE AT IDLE POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	73		0		0	
4	69	77.7	0	4.8	0	4.8
5	75		0		0	
6.3	72		0		0	
8	74	77.8	0	10.5	0	65.7
10	80		9.6		65.7	
12.5	77		13.6		65.8	
16	80	84	23.3	30.5	71.5	76.2
20	80		29.5		73.8	
25	81		36.3		76.6	
31.5	78	83.4	38.6	43.5	75	79.9
40	75		40.4		73	
50	64		33.8		62.7	
63	66.9	69.7	40.7	44	66.1	68.9
80	63		40.5		62.5	
100	60.1		41		59.8	
125	59.2	64.4	43.1	48.7	59	64.2
160	59.5		46.1		59.4	
200	60.6		49.7		60.6	
250	58.5	64	49.9	55.2	58.5	64
315	58.1		51.5		58.1	
400	59.2		54.4		59.2	
500	56.7	62.1	53.5	58.5	56.7	62.1
630	55.2		53.3		55.2	
800	54.4		53.6		54.4	
1,000	55.7	59.7	55.7	59.7	55.7	59.7
1,250	54.5		55.1		54.5	
1,600	53		54		52.9	
2,000	54	70.9	55.2	72.2	53.8	70.6
2,500	70.7		72		70.4	
3,150	69.2		70.4		68.7	
4,000	61.3	70.2	62.3	71.3	60.5	69.6
5,000	58.4		58.9		57.1	
6,300	53		52.9		51	
8,000	52.8	58.2	51.7	56.9	49.8	55
10,000	54.3		51.8		49.9	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 88.5 dB OASLA = 75.1 dB(A)

OASLC = 82.6 dB(C) C-A = 7.4 dB

**Table A-6: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT INTERMEDIATE POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	84		0		0	
4	88	91.4	0	4.8	0	4.8
5	87		0		0	
6.3	93		0		0	
8	96	97.9	0	25.6	0	81.7
10	96		25.6		81.7	
12.5	94		30.6		82.8	
16	93	97.1	36.3	40.4	84.5	88
20	88		37.5		81.8	
25	99		54.3		94.6	
31.5	97	101.4	57.6	60.5	94	97.7
40	89		54.4		87	
50	87		56.8		85.7	
63	90.2	93.9	64	69.2	89.4	93.2
80	89.7		67.2		89.2	
100	82.8		63.7		82.5	
125	76.2	84	60.1	66.4	76	83.8
160	73.2		59.8		73.1	
200	70.8		59.9		70.8	
250	68.2	73.8	59.6	64.9	68.2	73.8
315	67.4		60.8		67.4	
400	66.8		62		66.8	
500	66.5	71.1	63.3	67.8	66.5	71.1
630	65.6		63.7		65.6	
800	65.4		64.6		65.4	
1,000	65.4	70.1	65.4	70	65.4	70.1
1,250	65.1		65.7		65.1	
1,600	70.1		71.1		70	
2,000	73.5	78.5	74.7	79.8	73.3	78.3
2,500	75.9		77.2		75.6	
3,150	81.3		82.5		80.8	
4,000	79.9	88.9	80.9	89.6	79.1	87.8
5,000	87.4		87.9		86.1	
6,300	86.8		86.7		84.8	
8,000	79.9	88.1	78.8	87.6	76.9	85.7
10,000	78		75.5		73.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 105.4 dB OASLA = 92.1 dB(A)

OASLC = 100 dB(C) C-A = 7.9 dB

**Table A-7: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT INTERMEDIATE POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	76		0		0	
4	75	84.3	0	4.8	0	4.8
5	83		0		0	
6.3	82		0		0	
8	86	87.8	0	16.8	0	72.7
10	87		16.6		72.7	
12.5	86		22.6		74.8	
16	90	95.3	33.3	43	81.5	88.1
20	93		42.5		86.8	
25	92		47.3		87.6	
31.5	87	94.9	47.6	56.6	84	91.6
40	90		55.4		88	
50	83		52.8		81.7	
63	84.4	89	58.2	64.2	83.6	88.2
80	85		62.5		84.5	
100	78.1		59		77.8	
125	71	79.4	54.9	61.8	70.8	79.1
160	69.6		56.2		69.5	
200	68.7		57.8		68.7	
250	69.9	76.6	61.3	69.1	69.9	76.6
315	74.5		67.9		74.5	
400	78.1		73.3		78.1	
500	82	85.2	78.8	82.3	82	85.2
630	80.4		78.5		80.4	
800	79.4		78.6		79.4	
1,000	81.4	84.6	81.4	84.5	81.4	84.6
1,250	78.1		78.7		78.1	
1,600	79.7		80.7		79.6	
2,000	82.2	86.4	83.4	87.6	82	86.2
2,500	82.5		83.8		82.2	
3,150	84.8		86		84.3	
4,000	78.1	86.5	79.1	87.6	77.3	85.9
5,000	79.3		79.8		78	
6,300	78.2		78.1		76.2	
8,000	74.9	81.9	73.8	80.8	71.9	78.9
10,000	77.5		75		73.1	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 100.2 dB OASLA = 92.4 dB(A)

OASLC = 96.4 dB(C) C-A = 4 dB

**Table A-8: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT INTERMEDIATE POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	76		0		0	
4	78	84.2	0	4.8	0	4.8
5	82		0		0	
6.3	83		0		0	
8	88	89.4	0	18.7	0	74.7
10	89		18.6		74.7	
12.5	89		25.6		77.8	
16	97	105.7	40.3	54.7	88.5	99.2
20	105		54.5		98.8	
25	104		59.3		99.6	
31.5	93	104.8	53.6	63.4	90	100.8
40	95		60.4		93	
50	84		53.8		82.7	
63	88.8	91.9	62.6	67.1	88	91.2
80	87.4		64.9		86.9	
100	80.7		61.6		80.4	
125	76.4	82.4	60.3	64.9	76.2	82.2
160	71.2		57.8		71.1	
200	69.8		58.9		69.8	
250	67.3	72.9	58.7	64	67.3	72.9
315	66.6		60		66.6	
400	72.9		68.1		72.9	
500	75.3	79.2	72.1	76.3	75.3	79.2
630	74.8		72.9		74.8	
800	69.6		68.8		69.6	
1,000	68.5	73.3	68.5	73.2	68.5	73.3
1,250	67.2		67.8		67.2	
1,600	69.6		70.6		69.5	
2,000	75.5	80.1	76.7	81.3	75.3	79.8
2,500	77.6		78.9		77.3	
3,150	78.1		79.3		77.6	
4,000	68.4	79.2	69.4	80.3	67.6	78.6
5,000	70.6		71.1		69.3	
6,300	69.4		69.3		67.4	
8,000	66.2	72.4	65.1	71.6	63.2	69.7
10,000	66.6		64.1		62.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 108.6 dB OASLA = 86.2 dB(A)

OASLC = 103.5 dB(C) C-A = 18.3 dB

**Table A-9: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT INTERMEDIATE POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	75		0		0	
4	79	84.9	0	4.8	0	4.8
5	83		0		0	
6.3	84		0		0	
8	87	88.9	0	17.7	0	73.7
10	88		17.6		73.7	
12.5	91		27.6		79.8	
16	94	99.4	37.3	47	85.5	92.2
20	97		46.5		90.8	
25	99		54.3		94.6	
31.5	95	101	55.6	60.7	92	97.4
40	92		57.4		90	
50	90		59.8		88.7	
63	89.3	93.7	63.1	67.5	88.5	92.7
80	86.7		64.2		86.2	
100	83.4		64.3		83.1	
125	76.8	84.8	60.7	67.3	76.6	84.5
160	75.1		61.7		75	
200	72.8		61.9		72.8	
250	74.6	81	66	73.5	74.6	81
315	78.9		72.3		78.9	
400	82.2		77.4		82.2	
500	78.6	84.5	75.4	80.7	78.6	84.5
630	76.5		74.6		76.5	
800	75.9		75.1		75.9	
1,000	77.9	81.3	77.9	81.3	77.9	81.3
1,250	75.5		76.1		75.5	
1,600	75.4		76.4		75.3	
2,000	75.9	80.7	77.1	81.9	75.7	80.5
2,500	76.5		77.8		76.2	
3,150	75.6		76.8		75.1	
4,000	68.3	77.1	69.3	78.1	67.5	76.4
5,000	68.9		69.4		67.6	
6,300	68.3		68.2		66.3	
8,000	66.9	72.1	65.8	71.1	63.9	69.2
10,000	66.5		64		62.1	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 104.2 dB OASLA = 87.2 dB(A)

OASLC = 100 dB(C) C-A = 12.8 dB

**Table A-10: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT MILITARY POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	91		0		0	
4	97	100.1	0	4.8	0	4.8
5	96		0		0	
6.3	98		0		0	
8	101	103	0	29.6	0	85.7
10	100		29.6		85.7	
12.5	95		31.6		83.8	
16	96	99.1	39.3	42.8	87.5	90.2
20	90		39.5		83.8	
25	98		53.3		93.6	
31.5	96	100.4	56.6	59.5	93	96.7
40	88		53.4		86	
50	89		58.8		87.7	
63	93.1	97.7	66.9	73.5	92.3	97
80	94.8		72.3		94.3	
100	86.6		67.5		86.3	
125	82.2	89.2	66.1	72.7	82	88.9
160	83		69.6		82.9	
200	81.1		70.2		81.1	
250	79.7	85.1	71.1	76.7	79.7	85.1
315	80.2		73.6		80.2	
400	81.7		76.9		81.7	
500	80.4	85.1	77.2	81.6	80.4	85.1
630	78.2		76.3		78.2	
800	78.5		77.7		78.5	
1,000	78.3	83.4	78.3	83.4	78.3	83.4
1,250	79.1		79.7		79.1	
1,600	82		83		81.9	
2,000	83.9	89	85.1	90.2	83.7	88.8
2,500	85.9		87.2		85.6	
3,150	85.9		87.1		85.4	
4,000	86.2	90.7	87.2	91.6	85.4	89.8
5,000	85.6		86.1		84.3	
6,300	87.9		87.8		85.9	
8,000	82.1	89.3	81	88.8	79.1	86.9
10,000	78.4		75.9		74	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 108.4 dB OASLA = 95.7 dB(A)

OASLC = 101.7 dB(C) C-A = 6 dB

**Table A-11: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT MILITARY POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	85		0		0	
4	86	91.8	0	4.8	0	4.8
5	89		0		0	
6.3	89		0		0	
8	93	94.9	0	25.6	0	81.7
10	96		25.6		81.7	
12.5	95		31.6		83.8	
16	97	101.2	40.3	47.5	88.5	93.3
20	97		46.5		90.8	
25	95		50.3		90.6	
31.5	90	97.3	50.6	58.2	87	93.9
40	91		56.4		89	
50	86		55.8		84.7	
63	90.4	94.4	64.2	70	89.6	93.7
80	91		68.5		90.5	
100	85.6		66.5		85.3	
125	78	86.9	61.9	69.5	77.8	86.6
160	77.9		64.5		77.8	
200	78.8		67.9		78.8	
250	80.5	89.1	71.9	82	80.5	89.1
315	88		81.4		88	
400	92.7		87.9		92.7	
500	95.5	98.7	92.3	95.5	95.5	98.7
630	92.9		91		92.9	
800	93.3		92.5		93.3	
1,000	92.8	97.3	92.8	97.2	92.8	97.3
1,250	91.2		91.8		91.2	
1,600	86.9		87.9		86.8	
2,000	90.8	96.1	92	97.3	90.6	95.8
2,500	93.7		95		93.4	
3,150	93.4		94.6		92.9	
4,000	85.7	94.2	86.7	95.4	84.9	93.7
5,000	79.8		80.3		78.5	
6,300	77		76.9		75	
8,000	73.9	80.4	72.8	79.4	70.9	77.5
10,000	75.5		73		71.1	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 107 dB OASLA = 102.6 dB(A)

OASLC = 104.3 dB(C) C-A = 1.9 dB

**Table A-12: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT MILITARY POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	87		0		0	
4	86	91.8	0	4.8	0	4.8
5	88		0		0	
6.3	90		0		0	
8	96	97.4	0	26.6	0	82.7
10	97		26.6		82.7	
12.5	97		33.6		85.8	
16	102	108.5	45.3	56.8	93.5	101.7
20	107		56.5		100.8	
25	105		60.3		100.6	
31.5	94	105.6	54.6	63.1	91	101.5
40	93		58.4		91	
50	86		55.8		84.7	
63	90.4	94.6	64.2	70.4	89.6	93.9
80	91.5		69		91	
100	84.6		65.5		84.3	
125	80.7	87.1	64.6	70.5	80.5	86.8
160	80.2		66.8		80.1	
200	77.5		66.6		77.5	
250	78.7	86.2	70.1	78.8	78.7	86.2
315	84.5		77.9		84.5	
400	87.1		82.3		87.1	
500	88.8	92.7	85.6	89.6	88.8	92.7
630	87.8		85.9		87.8	
800	84.4		83.6		84.4	
1,000	84.2	88.9	84.2	88.9	84.2	88.9
1,250	83.8		84.4		83.8	
1,600	80.5		81.5		80.4	
2,000	88.1	92.4	89.3	93.6	87.9	92.1
2,500	89.9		91.2		89.6	
3,150	87.8		89		87.3	
4,000	77.3	88.4	78.3	89.5	76.5	87.8
5,000	74.6		75.1		73.3	
6,300	70.6		70.5		68.6	
8,000	69.7	74.3	68.6	73.4	66.7	71.5
10,000	68		65.5		63.6	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 111.1 dB OASLA = 97 dB(A)

OASLC = 105.7 dB(C) C-A = 8.7 dB

**Table A-13: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT MILITARY POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	80		0		0	
4	87	92	0	4.8	0	4.8
5	90		0		0	
6.3	91		0		0	
8	93	95.3	0	25.6	0	81.7
10	96		25.6		81.7	
12.5	98		34.6		86.8	
16	97	102.5	40.3	48.4	88.5	94.3
20	98		47.5		91.8	
25	100		55.3		95.6	
31.5	96	102.2	56.6	62.2	93	98.6
40	94		59.4		92	
50	91		60.8		89.7	
63	89.8	94.2	63.6	67.6	89	93.2
80	86.1		63.6		85.6	
100	87.8		68.7		87.5	
125	81.2	89.9	65.1	73.4	81	89.7
160	83.9		70.5		83.8	
200	82.1		71.2		82.1	
250	81.1	87.1	72.5	79	81.1	87.1
315	83.5		76.9		83.5	
400	85.8		81		85.8	
500	84.8	89	81.6	85.4	84.8	89
630	80.8		78.9		80.8	
800	83.8		83		83.8	
1,000	87.1	90.4	87.1	90.5	87.1	90.4
1,250	85.5		86.1		85.5	
1,600	85.3		86.3		85.2	
2,000	85.1	90.2	86.3	91.4	84.9	90
2,500	85.8		87.1		85.5	
3,150	86		87.2		85.5	
4,000	78.7	87.1	79.7	88.3	77.9	86.5
5,000	76.6		77.1		75.3	
6,300	74.3		74.2		72.3	
8,000	77.2	80.2	76.1	79.1	74.2	77.2
10,000	74.1		71.6		69.7	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 107 dB OASLA = 95.7 dB(A)

OASLC = 102.3 dB(C) C-A = 6.6 dB

**Table A-14: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT AFTERBURNER POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	91		0		0	
4	94	100	0	4.8	0	4.8
5	98		0		0	
6.3	102		0		0	
8	104	106.3	0	33.6	0	89.7
10	104		33.6		89.7	
12.5	102		38.6		90.8	
16	102	105.4	45.3	48.4	93.5	96.2
20	95		44.5		88.8	
25	103		58.3		98.6	
31.5	99	104.7	59.6	63.3	96	100.9
40	92		57.4		90	
50	94		63.8		92.7	
63	98.3	103.1	72.1	79	97.5	102.4
80	100.4		77.9		99.9	
100	93.5		74.4		93.2	
125	88.7	96	72.6	79.6	88.5	95.7
160	89.9		76.5		89.8	
200	85.3		74.4		85.3	
250	83.7	90.8	75.1	82.9	83.7	90.8
315	87.9		81.3		87.9	
400	88.7		83.9		88.7	
500	87.9	92.4	84.7	89	87.9	92.4
630	85.8		83.9		85.8	
800	87		86.2		87	
1,000	87.1	92.1	87.1	92.1	87.1	92.1
1,250	87.9		88.5		87.9	
1,600	89.7		90.7		89.6	
2,000	90.9	95.9	92.1	97.1	90.7	95.7
2,500	92.4		93.7		92.1	
3,150	92.6		93.8		92.1	
4,000	92.7	97.3	93.7	98.2	91.9	96.4
5,000	92.2		92.7		90.9	
6,300	91.6		91.5		89.6	
8,000	87.9	93.6	86.8	93.1	84.9	91.2
10,000	83.6		81.1		79.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 112.6 dB OASLA = 102.2 dB(A)

OASLC = 107.2 dB(C) C-A = 5 dB

**Table A-15: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT AFTERBURNER POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	84		0		0	
4	86	93.5	0	4.8	0	4.8
5	92		0		0	
6.3	91		0		0	
8	97	98.1	0	29.6	0	85.7
10	100		29.6		85.7	
12.5	101		37.6		89.8	
16	104	107.6	47.3	53.8	95.5	99.7
20	103		52.5		96.8	
25	100		55.3		95.6	
31.5	96	102.5	56.6	63.4	93	99.1
40	96		61.4		94	
50	92		61.8		90.7	
63	93.1	98.1	66.9	73.5	92.3	97.4
80	94.6		72.1		94.1	
100	91.1		72		90.8	
125	84.8	92.7	68.7	75.6	84.6	92.5
160	84.5		71.1		84.4	
200	83.7		72.8		83.7	
250	85.7	95	77.1	88	85.7	95
315	94.1		87.5		94.1	
400	100.2		95.4		100.2	
500	104.5	107.8	101.3	104.9	104.5	107.8
630	103.3		101.4		103.3	
800	101.7		100.9		101.7	
1,000	101.7	105.8	101.7	105.7	101.7	105.8
1,250	99.3		99.9		99.3	
1,600	94.5		95.5		94.4	
2,000	97.9	103.1	99.1	104.3	97.7	102.9
2,500	100.6		101.9		100.3	
3,150	99.9		101.1		99.4	
4,000	91.8	100.7	92.8	101.8	91	100.1
5,000	86.4		86.9		85.1	
6,300	80.6		80.5		78.6	
8,000	79.5	84.8	78.4	83.7	76.5	81.8
10,000	79.8		77.3		75.4	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 113.7 dB OASLA = 110.5 dB(A)

OASLC = 111.9 dB(C) C-A = 1.4 dB

**Table A-16: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT AFTERBURNER POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	82		0		0	
4	85	93.9	0	4.8	0	4.8
5	93		0		0	
6.3	91		0		0	
8	99	99.7	0	29.6	0	85.7
10	100		29.6		85.7	
12.5	103		39.6		91.8	
16	107	112.9	50.3	60.9	98.5	105.9
20	111		60.5		104.8	
25	106		61.3		101.6	
31.5	100	107.4	60.6	66.3	97	103.5
40	97		62.4		95	
50	91		60.8		89.7	
63	95.8	99.1	69.6	74.4	95	98.3
80	94.8		72.3		94.3	
100	91.1		72		90.8	
125	87.4	93.8	71.3	77.3	87.2	93.5
160	87.3		73.9		87.2	
200	83.3		72.4		83.3	
250	83.8	91.3	75.2	83.9	83.8	91.3
315	89.5		82.9		89.5	
400	94.9		90.1		94.9	
500	98	101.8	94.8	98.9	98	101.8
630	97.6		95.7		97.6	
800	93.5		92.7		93.5	
1,000	91.7	97	91.7	96.9	91.7	97
1,250	91.3		91.9		91.3	
1,600	88.8		89.8		88.7	
2,000	96.2	100.6	97.4	101.8	96	100.3
2,500	98.1		99.4		97.8	
3,150	95.8		97		95.3	
4,000	85.1	96.3	86.1	97.5	84.3	95.8
5,000	82.6		83.1		81.3	
6,300	76.2		76.1		74.2	
8,000	76.6	80.7	75.5	79.7	73.6	77.8
10,000	74.7		72.2		70.3	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 115.1 dB OASLA = 105.3 dB(A)

OASLC = 110.3 dB(C) C-A = 5 dB

Table A-17: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F100 ENGINE AT AFTERBURNER POWER.
LOCATION: DOOR 4

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	82		0		0	
4	86	93.3	0	4.8	0	4.8
5	92		0		0	
6.3	96		0		0	
8	98	100.2	0	29.6	0	85.7
10	100		29.6		85.7	
12.5	103		39.6		91.8	
16	103	107.5	46.3	52.9	94.5	99.1
20	102		51.5		95.8	
25	103		58.3		98.6	
31.5	100	105.8	60.6	66.6	97	102.4
40	99		64.4		97	
50	97		66.8		95.7	
63	95.5	100	69.3	73.4	94.7	99
80	91.8		69.3		91.3	
100	93.6		74.5		93.3	
125	87.6	95.8	71.5	79.3	87.4	95.6
160	89.8		76.4		89.7	
200	88.4		77.5		88.4	
250	87.5	94.1	78.9	86.3	87.5	94.1
315	91.2		84.6		91.2	
400	96		91.2		96	
500	94.4	99.7	91.2	96.3	94.4	99.7
630	94		92.1		94	
800	95.3		94.5		95.3	
1,000	98.7	101.9	98.7	101.9	98.7	101.9
1,250	96.7		97.3		96.7	
1,600	97.1		98.1		97	
2,000	96.8	102.2	98	103.4	96.6	102
2,500	98.3		99.6		98	
3,150	97.6		98.8		97.1	
4,000	88.2	98.3	89.2	99.5	87.4	97.7
5,000	85.6		86.1		84.3	
6,300	82.7		82.6		80.7	
8,000	86.1	88.9	85	87.8	83.1	85.9
10,000	82.8		80.3		78	

*** OVERALL LEVELS (3.15 - 10000 Hz

OASPL = 112.6 dB OASLA = 107.1 dB(A)

OASLC = 109.4 dB(C) C-A = 2.3 dB

**Table A-18: T9NSS AVERAGE INTERIOR NOISE
WITH F100 ENGINE AT IDLE POWER.
LOCATIONS: AVERAGE FROM POSITIONS I&E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	89.3		0		0	
4	87.6	92.4	0	4.7	0	4.7
5	85.3		0		0	
6.3	88		0		0	
8	90.2	93.6	0	17.7	0	73.7
10	88		17.6		73.7	
12.5	85.1		21.7		73.9	
16	83.5	89.5	26.8	35.7	75	81.4
20	85.4		34.9		79.2	
25	83.9		39.2		79.5	
31.5	82.5	86.9	43.1	47.3	79.5	83.5
40	78.6		44		76.6	
50	82.6		52.4		81.3	
63	82.2	87.3	56	62.2	81.4	86.5
80	83		60.5		82.5	
100	92.4		73.3		92.1	
125	92.3	96.6	76.2	80.6	92.1	96.4
160	90.7		77.3		90.6	
200	88.9		78		88.9	
250	89	93.4	80.4	84.9	89	93.4
315	88.1		81.5		88.1	
400	88.7		83.9		88.7	
500	88.8	93.7	85.6	90.6	88.8	93.7
630	89.3		87.4		89.3	
800	89.9		89.1		89.9	
1,000	91.5	97.2	91.5	97.4	91.5	97.2
1,250	94.7		95.3		94.7	
1,600	97.7		98.7		97.6	
2,000	94.6	111.7	95.8	113	94.4	111.4
2,500	111.5		112.8		111.2	
3,150	105.6		106.8		105.1	
4,000	111.9	114.2	112.9	115.1	111.1	113.3
5,000	108.9		109.4		107.6	
6,300	107.8		107.7		105.8	
8,000	107.3	111.8	106.2	110.8	104.3	108.9
10,000	105.9		103.4		101.5	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 117.7 dB OASLA = 118.2 dB(A)

OASLC = 116.6 dB(C) C-A = -1.6 dB

**Table A-19: T9NSS AVERAGE INTERIOR NOISE
WITH F100 ENGINE AT INTERMEDIATE POWER.
LOCATION: AVERAGE FROM POSITIONS I&E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	99.8		0		0	
4	99.9	103.6	0	4.7	0	4.7
5	96		0		0	
6.3	98.2		0		0	
8	98.4	102.9	0	27.4	0	83.5
10	97.8		27.4		83.5	
12.5	98.3		34.9		87.1	
16	99.9	108.7	43.2	57.3	91.4	102
20	107.7		57.2		101.5	
25	109.4		64.7		105	
31.5	108.1	114	68.7	76.5	105.1	111
40	110		75.4		108	
50	104.5		74.3		103.2	
63	99.3	107.1	73.1	81.2	98.5	106.2
80	101.9		79.4		101.4	
100	103.1		84		102.8	
125	105	109.3	88.9	94.1	104.8	109.1
160	105.4		92		105.3	
200	104.9		94		104.9	
250	107.1	110.9	98.5	102.7	107.1	110.9
315	106.3		99.7		106.3	
400	108.3		103.5		108.3	
500	108.5	113.2	105.3	110.1	108.5	113.2
630	108.7		106.8		108.7	
800	109.1		108.3		109.1	
1,000	110.1	114.7	110.1	114.8	110.1	114.7
1,250	110.7		111.3		110.7	
1,600	111.1		112.1		111	
2,000	110	115.2	111.2	116.3	109.8	115
2,500	110.2		111.5		109.9	
3,150	110.8		112		110.3	
4,000	109.9	116.9	110.9	117.7	109.1	115.9
5,000	114.5		115		113.2	
6,300	114.3		114.2		112.3	
8,000	111	117.4	109.9	116.5	108	114.6
10,000	111.9		109.4		107.5	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 124.0 dB OASLA = 122.8 dB(A)

OASLC = 122.8 dB(C) C-A = 0.0 dB

**Table A-20: T9NSS AVERAGE INTERIOR NOISE
WITH F100 ENGINE AT MILITARY POWER.
LOCATION: AVERAGE FROM POSITIONS I&E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	106.9		0		0	
4	106.8	110.9	0	4.7	0	4.7
5	104.6		0		0	
6.3	104.4		0		0	
8	103.4	108.2	0	31.9	0	88
10	102.3		31.9		88	
12.5	101.9		38.5		90.7	
16	103	110.9	46.3	59.2	94.5	104
20	109.5		59		103.3	
25	110.6		65.9		106.2	
31.5	108.7	115	69.3	77.6	105.7	112
40	111.2		76.6		109.2	
50	108.6		78.4		107.3	
63	107.5	113.3	81.3	88.4	106.7	112.5
80	109.5		87		109	
100	110.7		91.6		110.4	
125	112.5	118.2	96.4	103.5	112.3	118
160	115.7		102.3		115.6	
200	118.5		107.6		118.5	
250	119.6	124.1	111	116	119.6	124.1
315	120		113.4		120	
400	123.8		119		123.8	
500	122.9	128	119.7	124.7	122.9	128
630	123		121.1		123	
800	123.9		123.1		123.9	
1,000	124.6	129.6	124.6	129.7	124.6	129.6
1,250	125.9		126.5		125.9	
1,600	126.3		127.3		126.2	
2,000	125.7	130.7	126.9	131.8	125.5	130.5
2,500	125.8		127.1		125.5	
3,150	125		126.2		124.5	
4,000	124.8	129.4	125.8	130.3	124	128.6
5,000	124.2		124.7		122.9	
6,300	124.2		124.1		122.2	
8,000	123.8	128.7	122.7	127.6	120.8	125.7
10,000	123.8		121.3		119.4	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 136.8 dB OASLA = 136.5 dB(A)

OASLC = 136.2 dB(C) C-A = -0.3 dB

Table A-21: T9NSS AVERAGE INTERIOR NOISE
WITH F100 ENGINE AT AFTERBURNER POWER.
LOCATION: AVERAGE FROM POSITIONS I&E

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	109.6		0		0	
4	109	113.7	0	0	0	0
5	108.1		0		0	
6.3	111.4		0		0	
8	108.4	114.4	0	37.8	0	93.9
10	108.2		37.8		93.9	
12.5	107.6		44.2		96.4	
16	106.8	112.4	50.1	58.64	98.3	104.4
20	108.3		57.8		102.1	
25	104.2		59.5		99.8	
31.5	106.4	112.9	67	76.95	103.4	110.4
40	111		76.4		109	
50	111.3		81.1		110	
63	109.7	118.3	83.5	94.57	108.9	117.6
80	116.5		94		116	
100	118.2		99.1		117.9	
125	116	121.6	99.9	105.5	115.8	121.4
160	115.8		102.4		115.7	
200	112.4		101.5		112.4	
250	114.9	122.9	106.3	115.8	114.9	122.9
315	121.7		115.1		121.7	
400	122		117.2		122	
500	123.8	127.9	120.6	124.9	123.8	127.9
630	123.5		121.6		123.5	
800	125.35		124.55		125.35	
1,000	126.6	131	126.6	131.1	126.6	131
1,250	126.7		127.3		126.7	
1,600	126.3		127.3		126.2	
2,000	125.1	130.2	126.3	131.4	124.9	130
2,500	124.8		126.1		124.5	
3,150	123.7		124.9		123.2	
4,000	122.6	127.5	123.6	128.5	121.8	126.7
5,000	121.75		122.25		120.45	
6,300	121.25		121.15		119.25	
8,000	119.5	124.7	118.4	123.8	116.5	121.9
10,000	118.7		116.2		114.3	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 136.3 dB OASLA = 136 dB(A)

OASLC = 135.9 dB(C) C-A = -.1 dB

(This page left blank)

APPENDIX B
Exterior Near-Field and Interior Noise on the
F101-GE-102 Engine

(This page left blank)

TABLE B-1

**POWER CONDITIONS FOR EXTERIOR NEAR-FIELD AND
INTERIOR NOISE MEASUREMENTS FOR THE F101 ENGINE**

<u>POWER</u>	<u>%RPM</u>
Idle	71.0
Intermediate (Military Power)	100.0
Augmented Thrust (Afterburner)	100.0

**Table B-2: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F101 ENGINE AT IDLE POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	83		0		0	
4	78	85.6	0	4.8	0	4.8
5	80		0		0	
6.3	83		0		0	
8	86	89	0	14.9	0	70.7
10	85		14.6		70.7	
12.5	81		17.6		69.8	
16	80	85.5	23.3	31.4	71.5	77.3
20	81		30.5		74.8	
25	80		35.3		75.6	
31.5	76	81.9	36.6	41.3	73	78.2
40	72		37.4		70	
50	65		34.8		63.7	
63	66.7	70.6	40.5	45.4	65.9	69.8
80	65.6		43.1		65.1	
100	64.1		45		63.8	
125	62.6	67.2	46.5	50.7	62.4	67
160	59.6		46.2		59.5	
200	58.6		47.7		58.6	
250	55.3	61.4	46.7	52.5	55.3	61.4
315	55.1		48.5		55.1	
400	51.7		46.9		51.7	
500	51.6	57.5	48.4	54.7	51.6	57.5
630	54.3		52.4		54.3	
800	57.4		56.6		57.4	
1,000	51.9	59.4	51.9	59	51.9	59.4
1,250	52.1		52.7		52.1	
1,600	54.7		55.7		54.6	
2,000	63.7	78.5	64.9	79.8	63.5	78.2
2,500	78.3		79.6		78	
3,150	65.6		66.8		65.1	
4,000	76.2	78.9	77.2	79.8	75.4	78
5,000	75.2		75.7		73.9	
6,300	72.3		72.2		70.3	
8,000	70.6	75.6	69.5	74.8	67.6	72.9
10,000	69		66.5		64.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 923 dB OASLA = 83.4 dB(A)

OASLC = 84.7 dB(C) C-A = 1.3 dB

**Table B-3: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F101 ENGINE AT IDLE POWER.,
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	70		0		0	
4	66	74.2	0	4.8	0	4.8
5	71		0		0	
6.3	73		0		0	
8	73	77	0	4.6	0	55.7
10	70		0		55.7	
12.5	74		10.6		62.8	
16	78	81.4	21.3	27.7	69.5	73.6
20	77		26.5		70.8	
25	79		34.3		74.6	
31.5	75	81.2	35.6	41.2	72	77.6
40	73		38.4		71	
50	66		35.8		64.7	
63	64.8	69.1	38.6	42.4	64	68.1
80	60.6		38.1		60.1	
100	64.6		45.5		64.3	
125	62.3	68	46.2	51.9	62.1	67.8
160	62.4		49		62.3	
200	60.3		49.4		60.3	
250	64.4	70.7	55.8	63.4	64.4	70.7
315	69		62.4		69	
400	70.8		66		70.8	
500	72.6	76.3	69.4	73.2	72.6	76.3
630	71.1		69.2		71.1	
800	68.4		67.6		68.4	
1,000	66.7	71.8	66.7	71.6	66.7	71.8
1,250	65.3		65.9		65.3	
1,600	65.4		66.4		65.3	
2,000	76.7	87.1	77.9	88.3	76.5	86.8
2,500	86.6		87.9		86.3	
3,150	75.8		77		75.3	
4,000	80.1	83.4	81.1	84.2	79.3	82.5
5,000	78.9		79.4		77.6	
6,300	71.6		71.5		69.6	
8,000	70.3	75.2	69.2	74.3	67.3	72.4
10,000	69.2		66.7		64.8	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 90.8 dB OASLA = 90.1 dB(A)

OASLC = 89.2 dB(C) C-A = -.9 dB

**Table B-4: T9NSS EXTERIOR NEAR FIELD NOISE,
WITH F101 ENGINE AT IDLE POWER,
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	69		0		0	
4	68	81.5	0	4.8	0	4.8
5	81		0		0	
6.3	74		0		0	
8	74	77.6	0	5.8	0	58.7
10	73		2.6		58.7	
12.5	75		11.6		63.8	
16	81	86.1	24.3	34	72.5	79.1
20	84		33.5		77.8	
25	84		39.3		79.6	
31.5	76	85.2	36.6	44.3	73	81.3
40	76		41.4		74	
50	67		36.8		65.7	
63	60.7	68.6	34.5	41.4	59.9	67.6
80	60.5		38		60	
100	63		43.9		62.7	
125	57.2	64.3	41.1	46.6	57	64.1
160	52.8		39.4		52.7	
200	55.9		45		55.9	
250	53.3	60.7	44.7	52.7	53.3	60.7
315	57.5		50.9		57.5	
400	59.9		55.1		59.9	
500	61.7	65.9	58.5	62.9	61.7	65.9
630	61.6		59.7		61.6	
800	59.9		59.1		59.9	
1,000	54.8	62	54.8	61.6	54.8	62
1,250	54.6		55.2		54.6	
1,600	53.6		54.6		53.5	
2,000	66.6	76.7	67.8	78	66.4	76.4
2,500	76.2		77.5		75.9	
3,150	64.1		65.3		63.6	
4,000	66.4	70.2	67.4	71.1	65.6	69.3
5,000	65.4		65.9		64.1	
6,300	58.7		58.6		56.7	
8,000	57.6	62.3	56.5	61.4	54.6	59.5
10,000	56		53.5		51.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 90.1 dB OASLA = 79.1 dB(A)

OASLC = 84.6 dB(C) C-A = 5.5 dB

**Table B-5: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F101 ENGINE AT IDLE POWER
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	70		0		0	
4	71	77.3	0	4.8	0	4.8
5	75		0		0	
6.3	72		0		0	
8	73	76.6	0	5.8	0	58.7
10	73		2.6		58.7	
12.5	77		13.6		65.8	
16	81	84.8	24.3	31.5	72.5	77.1
20	81		30.5		74.8	
25	82		37.3		77.6	
31.5	75	83.3	35.6	42.5	72	79.5
40	74		39.4		72	
50	64		33.8		62.7	
63	61.2	66.2	35	38.6	60.4	65.1
80	54.9		32.4		54.4	
100	60.9		41.8		60.6	
125	57.2	64	41.1	48	57	63.8
160	58.8		45.4		58.7	
200	60.6		49.7		60.6	
250	58.2	64.4	49.6	55.9	58.2	64.4
315	59.8		53.2		59.8	
400	60.5		55.7		60.5	
500	59.4	64.5	56.2	61.2	59.4	64.5
630	59.2		57.3		59.2	
800	59.9		59.1		59.9	
1,000	57.4	63.4	57.4	63.3	57.4	63.4
1,250	58.2		58.8		58.2	
1,600	56.9		57.9		56.8	
2,000	60.3	71.9	61.5	73.1	60.1	71.6
2,500	71.4		72.7		71.1	
3,150	59.7		60.9		59.2	
4,000	68.5	70.9	69.5	71.7	67.7	69.9
5,000	66.2		66.7		64.9	
6,300	61.9		61.8		59.9	
8,000	60.8	65.6	59.7	64.7	57.8	62.8
10,000	59.6		57.1		55.2	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 88.3 dB OASLA = 76.3 dB(A)

OASLC = 82.6 dB(C) C-A = 6.3 dB

**Table B-6: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F101 ENGINE AT INTERMEDIATE POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	93		0		0	
4	99	101.7	0	4.8	0	4.8
5	97		0		0	
6.3	101		0		0	
8	102	104.8	0	28.6	0	84.7
10	99		28.6		84.7	
12.5	97		33.6		85.8	
16	99	101.5	42.3	44.8	90.5	92.6
20	91		40.5		84.8	
25	97		52.3		92.6	
31.5	95	99.7	55.6	59.9	92	96.2
40	91		56.4		89	
50	87		56.8		85.7	
63	92.4	96.9	66.2	73	91.6	96.2
80	94.3		71.8		93.8	
100	85.7		66.6		85.4	
125	81.4	88	65.3	71.3	81.2	87.8
160	80.9		67.5		80.8	
200	80.2		69.3		80.2	
250	78.3	83.8	69.7	75.1	78.3	83.8
315	78.3		71.7		78.3	
400	78.4		73.6		78.4	
500	77.5	82.5	74.3	79.2	77.5	82.5
630	77.2		75.3		77.2	
800	77		76.2		77	
1,000	75.7	80.8	75.7	80.6	75.7	80.8
1,250	75		75.6		75	
1,600	77.4		78.4		77.3	
2,000	80.7	85	81.9	86.2	80.5	84.8
2,500	81.6		82.9		81.3	
3,150	81.8		83		81.3	
4,000	82.1	87.3	83.1	88.1	81.3	86.4
5,000	83.4		83.9		82.1	
6,300	85.6		85.5		83.6	
8,000	81.2	87.7	80.1	87.1	78.2	85.2
10,000	80		77.5		75.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 109.2 dB OASLA = 92.7 dB(A)

OASLC = 101 dB(C) C-A = 8.3 dB

**Table B-7: T9NSS EXTERIOR NEAR FIELD NOISE WITH
F101 ENGINE AT INTERMEDIATE POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	85		0		0	
4	88	92.4	0	4.8	0	4.8
5	89		0		0	
6.3	92		0		0	
8	96	97.7	0	28.6	0	84.7
10	99		28.6		84.7	
12.5	99		35.6		87.8	
16	100	103.8	43.3	49.1	91.5	95.5
20	98		47.5		91.8	
25	97		52.3		92.6	
31.5	94	100	54.6	61.2	91	96.7
40	94		59.4		92	
50	89		58.8		87.7	
63	95.1	97.7	68.9	72.8	94.3	96.9
80	92.7		70.2		92.2	
100	86.5		67.4		86.2	
125	80.8	88.3	64.7	71.4	80.6	88.1
160	80.6		67.2		80.5	
200	79.4		68.5		79.4	
250	79.5	86.9	70.9	79.5	79.5	86.9
315	85		78.4		85	
400	88.8		84		88.8	
500	91.5	95.4	88.3	92.4	91.5	95.4
630	91		89.1		91	
800	89.1		88.3		89.1	
1,000	87.8	92.4	87.8	92.2	87.8	92.4
1,250	85.3		85.9		85.3	
1,600	83		84		82.9	
2,000	90.6	94.6	91.8	95.9	90.4	94.4
2,500	91.9		93.2		91.6	
3,150	89.4		90.6		88.9	
4,000	81.1	90.3	82.1	91.5	80.3	89.7
5,000	79		79.5		77.7	
6,300	76.6		76.5		74.6	
8,000	75.3	80.3	74.2	79.4	72.3	77.5
10,000	74.4		71.9		70	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 108.2 dB OASLA = 99.5 dB(A)

OASLC = 103.7 dB(C) C-A = 4.2 dB

**Table B-8: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F101 ENGINE AT INTERMEDIATE POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	82		0		0	
4	89	92.9	0	4.8	0	4.8
5	90		0		0	
6.3	93		0		0	
8	99	100	0	30.6	0	86.7
10	101		30.6		86.7	
12.5	101		37.6		89.8	
16	106	109.6	49.3	56.5	97.5	102.1
20	106		55.5		99.8	
25	103		58.3		98.6	
31.5	96	104.6	56.6	64.6	93	100.9
40	97		62.4		95	
50	87		56.8		85.7	
63	93	96.5	66.8	72.2	92.2	95.8
80	93		70.5		92.5	
100	86.3		67.2		86	
125	78.4	87.2	62.3	69.3	78.2	87
160	75.1		61.7		75	
200	79.7		68.8		79.7	
250	73.5	82.5	64.9	73.8	73.5	82.5
315	77.9		71.3		77.9	
400	81.5		76.7		81.5	
500	85.3	88.9	82.1	86	85.3	88.9
630	84.6		82.7		84.6	
800	81.6		80.8		81.6	
1,000	79.1	84.7	79.1	84.5	79.1	84.7
1,250	78.3		78.9		78.3	
1,600	75.7		76.7		75.6	
2,000	83.2	86.9	84.4	88.1	83	86.6
2,500	83.8		85.1		83.5	
3,150	81.1		82.3		80.6	
4,000	72.1	81.9	73.1	83.1	71.3	81.4
5,000	70.6		71.1		69.3	
6,300	68.9		68.8		66.9	
8,000	67.8	72.9	66.7	71.9	64.8	70
10,000	67.4		64.9		63	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 111.8 dB OASLA = 92 dB(A)

OASLC = 105.5 dB(C) C-A = 13.5 dB

**Table B-9: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F101 ENGINE AT INTERMEDIATE POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	83		0		0	
4	91	95.4	0	4.8	0	4.8
5	93		0		0	
6.3	96		0		0	
8	95	98.7	0	29.6	0	85.7
10	100		29.6		85.7	
12.5	102		38.6		90.8	
16	100	105.1	43.3	49.3	91.5	96.2
20	98		47.5		91.8	
25	102		57.3		97.6	
31.5	98	104.2	58.6	64.2	95	100.6
40	96		61.4		94	
50	94		63.8		92.7	
63	93.1	97.6	66.9	71.6	92.3	96.7
80	91		68.5		90.5	
100	88.9		69.8		88.6	
125	81.1	90.4	65	73.3	80.9	90.1
160	82.8		69.4		82.7	
200	83		72.1		83	
250	80.2	87.1	71.6	78.8	80.2	87.1
315	83.2		76.6		83.2	
400	84.7		79.9		84.7	
500	82.7	88.4	79.5	85	82.7	88.4
630	83.1		81.2		83.1	
800	83.1		82.3		83.1	
1,000	83.6	87.8	83.6	87.7	83.6	87.8
1,250	82.3		82.9		82.3	
1,600	82.8		83.8		82.7	
2,000	83.4	88.7	84.6	89.9	83.2	88.5
2,500	85.3		86.6		85	
3,150	83.4		84.6		82.9	
4,000	77.8	84.9	78.8	86	77	84.3
5,000	74.9		75.4		73.6	
6,300	75.8		75.7		73.8	
8,000	77.1	80.5	76	79.5	74.1	77.6
10,000	73.7		71.2		69.3	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 109.5 dB OASLA = 94 dB(A)

OASLC = 103.9 dB(C) C-A = 9.9 dB

Table B-10: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F101 ENGINE AT AFTERBURNER POWER.
LOCATION: MAIN DOOR

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	90		0		0	
4	96	102.4	0	4.8	0	4.8
5	101		0		0	
6.3	106		0		0	
8	105	108.6	0	35.6	0	91.7
10	106		35.6		91.7	
12.5	106		42.6		94.8	
16	106	109.4	49.3	52.4	97.5	100.2
20	99		48.5		92.8	
25	104		59.3		99.6	
31.5	99	105.6	59.6	64.6	96	101.8
40	95		60.4		93	
50	96		65.8		94.7	
63	99.1	104.9	72.9	81.1	98.3	104.2
80	102.7		80.2		102.2	
100	95		75.9		94.7	
125	91.6	97.8	75.5	81.5	91.4	97.6
160	91.6		78.2		91.5	
200	87.3		76.4		87.3	
250	85.4	91	76.8	82.4	85.4	91
315	85.8		79.2		85.8	
400	86.2		81.4		86.2	
500	84.3	89.6	81.1	86.2	84.3	89.6
630	83.7		81.8		83.7	
800	84.2		83.4		84.2	
1,000	84.3	89.3	84.3	89.3	84.3	89.3
1,250	85		85.6		85	
1,600	87.5		88.5		87.4	
2,000	89.4	94	90.6	95.2	89.2	93.8
2,500	90.4		91.7		90.1	
3,150	90.4		91.6		89.9	
4,000	90.2	95	91.2	95.9	89.4	94.1
5,000	90		90.5		88.7	
6,300	90.3		90.2		88.3	
8,000	87.2	92.8	86.1	92.1	84.2	90.2
10,000	84.8		82.3		80.4	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 114.8 dB OASLA = 100.2 dB(A)

OASLC = 108.3 dB(C) C-A = 8.1 dB

**Table B-11: T9NSS EXTERIOR NEAR FIELD NOISE,
WITH F101 ENGINE AT AFTERBURNER POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	85		0		0	
4	89	96.3	0	4.8	0	4.8
5	95		0		0	
6.3	95		0		0	
8	101	102.1	0	34.6	0	90.7
10	105		34.6		90.7	
12.5	105		41.6		93.8	
16	108	111	51.3	56.3	99.5	102.8
20	105		54.5		98.8	
25	104		59.3		99.6	
31.5	103	107.8	63.6	69.4	100	104.6
40	102		67.4		100	
50	98		67.8		96.7	
63	100.1	103.8	73.9	78.5	99.3	102.9
80	98.6		76.1		98.1	
100	97		77.9		96.7	
125	90.9	98.6	74.8	81.3	90.7	98.3
160	89.8		76.4		89.7	
200	87		76.1		87	
250	92.4	99.7	83.8	92.6	92.4	99.7
315	98.5		91.9		98.5	
400	102.2		97.4		102.2	
500	102.7	106.7	99.5	103.4	102.7	106.7
630	100.7		98.8		100.7	
800	100.1		99.3		100.1	
1,000	98.4	103.4	98.4	103.2	98.4	103.4
1,250	96.7		97.3		96.7	
1,600	94.8		95.8		94.7	
2,000	102.3	105.9	103.5	107.2	102.1	105.7
2,500	102.8		104.1		102.5	
3,150	100.2		101.4		99.7	
4,000	91	100.9	92	102.1	90.2	100.4
5,000	88.3		88.8		87	
6,300	83.3		83.2		81.3	
8,000	84.4	88.2	83.3	87.1	81.4	85.2
10,000	82.2		79.7		77.8	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 116 dB OASLA = 110.5 dB(A)

OASLC = 113 dB(C) C-A = 2.6 dB

**Table B-12: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F101 ENGINE AT AFTERBURNER POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	85		0		0	
4	89	96.3	0	4.8	0	4.8
5	95		0		0	
6.3	96		0		0	
8	103	103.8	0	35.6	0	91.7
10	106		35.6		91.7	
12.5	108		44.6		96.8	
16	112	115.8	55.3	62.5	103.5	108.1
20	112		61.5		105.8	
25	106		61.3		101.6	
31.5	101	108	61.6	68	98	104.3
40	100		65.4		98	
50	94		63.8		92.7	
63	99.1	103.1	72.9	78.8	98.3	102.3
80	99.8		77.3		99.3	
100	94.8		75.7		94.5	
125	87.8	96.2	71.7	78.9	87.6	96
160	87.6		74.2		87.5	
200	86.6		75.7		86.6	
250	83.5	92.3	74.9	84.6	83.5	92.3
315	90		83.4		90	
400	95.2		90.4		95.2	
500	94.6	99.4	91.4	96.1	94.6	99.4
630	94		92.1		94	
800	93.7		92.9		93.7	
1,000	90.8	96.4	90.8	96.1	90.8	96.4
1,250	89		89.6		89	
1,600	87.3		88.3		87.2	
2,000	94.9	98.5	96.1	99.7	94.7	98.2
2,500	95.3		96.6		95	
3,150	91.2		92.4		90.7	
4,000	81.1	91.8	82.1	93	80.3	91.3
5,000	78.8		79.3		77.5	
6,300	74.4		74.3		72.4	
8,000	75.5	79.2	74.4	78.2	72.5	76.3
10,000	73.1		70.6		68.7	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 117.5 dB OASLA = 103 dB(A)

OASLC = 111.4 dB(C) C-A = 8.4 dB

**Table B-13: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F101 ENGINE AT AFTERBURNER POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	84		0		0	
4	91	98.1	0	4.8	0	4.8
5	97		0		0	
6.3	100		0		0	
8	102	104.2	0	33.6	0	89.7
10	104		33.6		89.7	
12.5	106		42.6		94.8	
16	106	110.8	49.3	56.6	97.5	102.6
20	106		55.5		99.8	
25	107		62.3		102.6	
31.5	104	109.8	64.6	70.6	101	106.4
40	103		68.4		101	
50	102		71.8		100.7	
63	99.5	105	73.3	78.8	98.7	104
80	98.4		75.9		97.9	
100	98.9		79.8		98.6	
125	92.4	100.9	76.3	84.3	92.2	100.7
160	94.5		81.1		94.4	
200	92.9		82		92.9	
250	92.7	99.6	84.1	92	92.7	99.6
315	97.3		90.7		97.3	
400	99.7		94.9		99.7	
500	97.3	102.8	94.1	99.4	97.3	102.8
630	96.6		94.7		96.6	
800	97.1		96.3		97.1	
1,000	97.7	102.3	97.7	102.3	97.7	102.3
1,250	97.7		98.3		97.7	
1,600	97.4		98.4		97.3	
2,000	99.8	103.7	101	104.9	99.6	103.5
2,500	99.2		100.5		98.9	
3,150	96		97.2		95.5	
4,000	88.7	97.1	89.7	98.2	87.9	96.5
5,000	85.6		86.1		84.3	
6,300	83.5		83.4		81.5	
8,000	84.7	88.2	83.6	87.3	81.7	85.4
10,000	81.7		79.2		77.3	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 116.9 dB OASLA = 108.2 dB(A)

OASLC = 112.4 dB(C) C-A = 4.2 dB

Table 3-14: T9NSS AVERAGE INTERIOR NOISE
WITH F101 ENGINE AT IDLE POWER.
LOCATION: AVERAGE FROM POSITION M

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	102		0		0	
4	96.8	103.9	0	4.8	0	4.8
5	96.1		0		0	
6.3	94.6		0		0	
8	94.2	103.3	0	22.6	0	78.7
10	93		22.6		78.7	
12.5	91.6		28.2		80.4	
16	92.6	100.3	35.9	48.5	84.1	93.3
20	98.7		48.2		92.5	
25	95.6		50.9		91.2	
31.5	89.4	97.4	50	57.6	86.4	93.8
40	90.1		55.5		88.1	
50	97.1		66.9		95.8	
63	97.6	101	71.4	74.5	96.8	100
80	92.3		69.8		91.8	
100	97		77.9		96.7	
125	98.2	104.7	82.1	90.2	98	104.6
160	102.6		89.2		102.5	
200	98.5		87.6		98.5	
250	93.3	101.5	84.7	92.8	93.3	101.5
315	96.8		90.2		96.8	
400	100.9		96.1		100.9	
500	96.9	104.7	93.7	101.6	96.9	104.7
630	100.9		99		100.9	
800	99.7		98.9		99.7	
1,000	99.4	106.1	99.4	106.3	99.4	106.1
1,250	103.5		104.1		103.5	
1,600	102.2		103.2		102.1	
2,000	103.9	119.4	105.1	120.7	103.7	119.1
2,500	119.2		120.5		118.9	
3,150	108		109.2		107.5	
4,000	124.4	127.7	125.4	128.4	123.6	126.6
5,000	124.8		125.3		123.5	
6,300	113.3		113.2		111.3	
8,000	106.5	114.4	105.4	114	103.5	112.1
10,000	102.1		99.6		97.7	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 128.5 dB OASLA = 129.3 dB(A)

OASLC = 127.5 dB(C) C-A = -1.7 dB

**Table B-15: T9NSS AVERAGE INTERIOR NOISE
WITH F101 ENGINE AT 12500 RPM POWER.
LOCATION: AVERAGE FROM POSITION M**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	114.1		0		0	
4	112.9	117.9	0	4.8	0	4.8
5	112.3		0		0	
6.3	112.7		0		0	
8	112.2	117.8	0	42.2	0	98.3
10	112.6		42.2		98.3	
12.5	113.2		49.8		102	
16	114.2	120.1	57.5	67.4	105.7	112.7
20	117.4		66.9		111.2	
25	115.9		71.2		111.5	
31.5	110.9	117.6	71.5	76.8	107.9	113.8
40	107.7		73.1		105.7	
50	109.5		79.3		108.2	
63	109.7	113.5	83.5	87.3	108.9	112.5
80	106		83.5		105.5	
100	103.5		84.4		103.2	
125	105	108.9	88.9	93.2	104.8	108.7
160	103.6		90.2		103.5	
200	107.3		96.4		107.3	
250	108.2	116.4	99.6	109.2	108.2	116.4
315	115		108.4		115	
400	121.4		116.6		121.4	
500	114.5	122.9	111.3	118.9	114.5	122.9
630	114.7		112.8		114.7	
800	120.2		119.4		120.2	
1,000	117.5	125.2	117.5	125.4	117.5	125.2
1,250	122.4		123		122.4	
1,600	121.9		122.9		121.8	
2,000	119.4	126.1	120.6	127.3	119.2	125.9
2,500	122.3		123.6		122	
3,150	122.8		124		122.3	
4,000	128.9	138.4	129.9	139	128.1	137.2
5,000	137.8		138.3		136.5	
6,300	125.1		125		123.1	
8,000	118.1	126.1	117	125.7	115.1	123.8
10,000	112.2		109.7		107.8	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 139.4 dB OASLA = 139.7 dB(A)

OASLC = 138.2 dB(C) C-A = -1.6 dB

**Table B-16: T9NSS AVERAGE INTERIOR NOISE
WITH F101 ENGINE AT INTERMEDIATE POWER.
LOCATION: AVERAGE FROM POSITION M**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	125.8		0		0	
4	124.8	130.1	0	4.8	0	4.8
5	125.2		0		0	
6.3	124.6		0		0	
8	124.7	129.8	0	53	0	109.1
10	123.4		53		109.1	
12.5	123.3		59.9		112.1	
16	124.6	128.7	67.9	74.5	116.1	120.5
20	123.7		73.2		117.5	
25	123.1		78.4		118.7	
31.5	121	126	81.6	86.5	118	122.5
40	118.3		83.7		116.3	
50	117.6		87.4		116.3	
63	121.1	123.8	94.9	98.1	120.3	122.9
80	117.1		94.6		116.6	
100	116.8		97.7		116.5	
125	119.6	123.3	103.5	107.9	119.4	123.1
160	118.6		105.2		118.5	
200	119.3		108.4		119.3	
250	118.4	126.3	109.8	118.8	118.4	126.3
315	124.4		117.8		124.4	
400	131.1		126.3		131.1	
500	124.4	133.3	121.2	129.6	124.4	133.3
630	127.5		125.6		127.5	
800	135.2		134.4		135.2	
1,000	130.4	138.5	130.4	138.4	130.4	138.5
1,250	134.3		134.9		134.3	
1,600	133.4		134.4		133.3	
2,000	131	137.2	132.2	138.4	130.8	137.1
2,500	132.7		134		132.4	
3,150	134.1		135.3		133.6	
4,000	136.9	143.2	137.9	143.9	136.1	142.1
5,000	141.3		141.8		140	
6,300	138.2		138.1		136.2	
8,000	125.9	138.5	124.8	138.3	122.9	136.4
10,000	118.5		116		114.1	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 146.7 dB OASLA = 146.7 dB(A)

OASLC = 145.6 dB(C) C-A = -1.1 dB

**Table B-17: T9NSS AVERAGE INTERIOR NOISE
WITH F101 ENGINE AT AFTERBURNER POWER.
LOCATION: AVERAGE FROM POSITION M**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	129.3		0		0	
4	125.8	132.5	0	4.8	0	4.8
5	127.3		0		0	
6.3	127.2		0		0	
8	127.8	133	0	57.2	0	113.3
10	127.6		57.2		113.3	
12.5	128.2		64.8		117	
16	129.5	133.2	72.8	78.4	121	124.8
20	127.3		76.8		121.1	
25	127.7		83		123.3	
31.5	126.5	131.5	87.1	93	123.5	128.3
40	125.7		91.1		123.7	
50	125.8		95.6		124.5	
63	126.4	131.7	100.2	107.1	125.6	130.9
80	128.2		105.7		127.7	
100	131.9		112.8		131.6	
125	135.7	138.4	119.6	122.7	135.5	138.2
160	132.1		118.7		132	
200	131		120.1		131	
250	135.4	139.2	126.8	131.3	135.4	139.2
315	135.5		128.9		135.5	
400	141.8		137		141.8	
500	137.8	144.6	134.6	141.1	137.8	144.6
630	138.8		136.9		138.8	
800	141.7		140.9		141.7	
1,000	138.5	145.6	138.5	145.5	138.5	145.6
1,250	141.5		142.1		141.5	
1,600	141.1		142.1		141	
2,000	139.9	145.3	141.1	146.5	139.7	145.1
2,500	140.6		141.9		140.3	
3,150	141.2		142.4		140.7	
4,000	142.8	148.9	143.8	149.6	142	147.8
5,000	146.5		147		145.2	
6,300	146.6		146.5		144.6	
8,000	134.4	146.9	133.3	146.7	131.4	144.8
10,000	125.8		123.3		121.4	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 153.9 dB OASLA = 153.7 dB(A)

OASLC = 153.1 dB(C) C-A = -.6 dB

(This page left blank)

APPENDIX C
Exterior Near-Field and Interior Noise on the
F108-CF-100 Engine

(This page left blank)

TABLE C-1

POWER CONDITIONS FOR EXTERIOR NEAR-FIELD AND
INTERIOR NOISE MEASUREMENTS FOR THE F108 ENGINE

<u>POWER</u>	<u>%RPM</u>
Flight Idle	35.4
Maximum continuous	88.6
Takeoff	89.4

**Table C-2: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F108 ENGINE AT FLIGHT IDLE POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	92		0		0	
4	90	95.8	0	4.8	0	4.8
5	91		0		0	
6.3	94		0		0	
8	95	98.6	0	24.6	0	80.7
10	95		24.6		80.7	
12.5	91		27.6		79.8	
16	88	93.3	31.3	36.2	79.5	83.9
20	84		33.5		77.8	
25	94		49.3		89.6	
31.5	92	96.2	52.6	54.5	89	92.4
40	77		42.4		75	
50	76		45.8		74.7	
63	76.7	80.5	50.5	54.7	75.9	79.6
80	74.1		51.6		73.6	
100	71		51.9		70.7	
125	67.9	73.3	51.8	56.4	67.7	73.1
160	64.5		51.1		64.4	
200	64.6		53.7		64.6	
250	60.8	67.8	52.2	59.1	60.8	67.8
315	62.8		56.2		62.8	
400	59.7		54.9		59.7	
500	60.3	66.2	57.1	63.5	60.3	66.2
630	63.4		61.5		63.4	
800	61		60.2		61	
1,000	60.1	66.8	60.1	66.9	60.1	66.8
1,250	63.9		64.5		63.9	
1,600	64.9		65.9		64.8	
2,000	71.4	80.8	72.6	82	71.2	80.5
2,500	80.1		81.4		79.8	
3,150	72.5		73.7		72	
4,000	71.7	79.4	72.7	80.2	70.9	78.4
5,000	77.4		77.9		76.1	
6,300	70.2		70.1		68.2	
8,000	68	72.8	66.9	72.1	65	70.2
10,000	63.4		60.9		59	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 102.9 dB OASLA = 84.6 dB(A)

OASLC = 93.8 dB(C) C-A = 9.2 dB

**Table C-3: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F108 ENGINE AT FLIGHT IDLE POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	72		0		0	
4	74	80.8	0	4.8	0	4.8
5	79		0		0	
6.3	80		0		0	
8	82	84.4	0	8.9	0	63.7
10	78		7.6		63.7	
12.5	78		14.6		66.8	
16	84	87.5	27.3	34.5	75.5	80
20	84		33.5		77.8	
25	86		41.3		81.6	
31.5	80	87.5	40.6	46.7	77	83.7
40	78		43.4		76	
50	74		43.8		72.7	
63	72.1	77.7	45.9	52.2	71.3	76.8
80	72.6		50.1		72.1	
100	67		47.9		66.7	
125	63.4	69.2	47.3	52.1	63.2	68.9
160	60.1		46.7		60	
200	62.1		51.2		62.1	
250	54.6	64.6	46	55.9	54.6	64.6
315	59.9		53.3		59.9	
400	54.8		50		54.8	
500	54.5	59.5	51.3	56.3	54.5	59.5
630	54.8		52.9		54.8	
800	57.4		56.6		57.4	
1,000	56.3	62.5	56.3	62.6	56.3	62.5
1,250	59.1		59.7		59.1	
1,600	57		58		56.9	
2,000	63	66.8	64.2	68.1	62.8	66.6
2,500	63.7		65		63.4	
3,150	60.1		61.3		59.6	
4,000	57.2	64.5	58.2	65.3	56.4	63.6
5,000	61		61.5		59.7	
6,300	58.3		58.2		56.3	
8,000	53	60.3	51.9	59.7	50	57.8
10,000	52.8		50.3		48.4	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 92.2 dB OASLA = 71.4 dB(A)

OASLC = 86.1 dB(C) C-A = 14.7 dB

**Table C-4: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F108 ENGINE AT FLIGHT IDLE POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	73		0		0	
4	73	80.1	0	4.8	0	4.8
5	78		0		0	
6.3	83		0		0	
8	84	86.7	0	8.2	0	62.7
10	77		6.6		62.7	
12.5	82		18.6		70.8	
16	88	96	31.3	44.7	79.5	89.3
20	95		44.5		88.8	
25	96		51.3		91.6	
31.5	90	97.1	50.6	55	87	93.2
40	83		48.4		81	
50	74		43.8		72.7	
63	74.1	79.2	47.9	54.3	73.3	78.4
80	75.1		52.6		74.6	
100	66.8		47.7		66.5	
125	60.8	68.8	44.7	52.1	60.6	68.6
160	62.1		48.7		62	
200	63.4		52.5		63.4	
250	56.8	65.3	48.2	56.1	56.8	65.3
315	58.8		52.2		58.8	
400	56.5		51.7		56.5	
500	55.7	60.2	52.5	56.7	55.7	60.2
630	53.4		51.5		53.4	
800	51.3		50.5		51.3	
1,000	51.6	57.2	51.6	57.3	51.6	57.2
1,250	53.8		54.4		53.8	
1,600	53.3		54.3		53.2	
2,000	54.7	61.2	55.9	62.4	54.5	60.9
2,500	59		60.3		58.7	
3,150	53		54.2		52.5	
4,000	51.8	58.2	52.8	59.1	51	57.3
5,000	55		55.5		53.7	
6,300	52.3		52.2		50.3	
8,000	53	57.5	51.9	56.3	50	54.4
10,000	52.8		50.3		48.4	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 99.9 dB OASLA = 67.1 dB(A)

OASLC = 94.8 dB(C) C-A = 27.7 dB

**Table C-5: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F108 ENGINE AT FLIGHT IDLE POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	71		0		0	
4	71	75.8	0	4.8	0	4.8
5	77		0		0	
6.3	75		0		0	
8	78	80.3	0	11.3	0	66.7
10	81		10.6		66.7	
12.5	83		19.6		71.8	
16	87	92.3	30.3	40	78.5	85.1
20	90		39.5		83.8	
25	93		48.3		88.6	
31.5	87	94.1	47.6	51.5	84	90
40	77		42.4		75	
50	73		42.8		71.7	
63	72.2	76.6	46	50.4	71.4	75.6
80	69.6		47.1		69.1	
100	70.1		51		69.8	
125	66.2	72.2	50.1	55.1	66	71.9
160	63.3		49.9		63.2	
200	57.2		46.3		57.2	
250	53.9	61.4	45.3	53.2	53.9	61.4
315	57.8		51.2		57.8	
400	57.8		53		57.8	
500	56	62.4	52.8	59.4	56	62.4
630	58.7		56.8		58.7	
800	58.4		57.6		58.4	
1,000	58.8	64	58.8	64	58.8	64
1,250	60.2		60.8		60.2	
1,600	58.4		59.4		58.3	
2,000	57.2	62	58.4	63.1	57	61.8
2,500	55.7		57		55.4	
3,150	51.4		52.6		50.9	
4,000	49.9	56.3	50.9	57.1	49.1	55.4
5,000	52.8		53.3		51.5	
6,300	51.2		51.1		49.2	
8,000	52.1	55.8	51	54.8	49.1	52.9
10,000	49.3		46.8		44.9	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 96.6 dB OASLA = 68.5 dB(A)

OASLC = 91.5 dB(C) C-A = 23 dB

Table C-6: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F108 ENGINE AT MAXIMUM CONTINUOUS POWER.
LOCATION: MAIN DOOR

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	91		0		0	
4	96	99.6	0	4.8	0	4.8
5	96		0		0	
6.3	102		0		0	
8	102	105.2	0	31.6	0	87.7
10	102		31.6		87.7	
12.5	99		35.6		87.8	
16	98	102.1	41.3	45.4	89.5	93
20	93		42.5		86.8	
25	103		58.3		98.6	
31.5	102	105.7	62.6	64.8	99	102.1
40	92		57.4		90	
50	96		65.8		94.7	
63	96.1	99.9	69.9	73.7	95.3	99
80	92.5		70		92	
100	86.5		67.4		86.2	
125	82.5	88.9	66.4	72.3	82.3	88.7
160	81.9		68.5		81.8	
200	81.8		70.9		81.8	
250	80.9	86.2	72.3	77.8	80.9	86.2
315	81.5		74.9		81.5	
400	81.1		76.3		81.1	
500	80.8	86	77.6	82.9	80.8	86
630	81.7		79.8		81.7	
800	81.3		80.5		81.3	
1,000	80.1	84.6	80.1	84.4	80.1	84.6
1,250	77.3		77.9		77.3	
1,600	79.1		80.1		79	
2,000	81.8	88.1	83	89.3	81.6	87.8
2,500	86.1		87.4		85.8	
3,150	90.4		91.6		89.9	
4,000	88.2	93.4	89.2	94.4	87.4	92.7
5,000	86.5		87		85.2	
6,300	86.9		86.8		84.9	
8,000	83.7	89.2	82.6	88.6	80.7	86.7
10,000	80.4		77.9		76	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 111 dB OASIA = 96.9 dB(A)

OASLC = 105 dB(C) C-A = 8.1 dB

**Table C-7: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F108 ENGINE AT MAXIMUM CONTINUOUS POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	83		0		0	
4	84	90.3	0	4.8	0	4.8
5	88		0		0	
6.3	91		0		0	
8	94	96	0	24.6	0	80.7
10	95		24.6		80.7	
12.5	94		30.6		82.8	
16	97	101.4	40.3	48.3	88.5	93.8
20	98		47.5		91.8	
25	97		52.3		92.6	
31.5	94	100.3	54.6	61.9	91	97.1
40	95		60.4		93	
50	94		63.8		92.7	
63	94.2	98.5	68	73	93.4	97.7
80	93		70.5		92.5	
100	82.8		63.7		82.5	
125	77.3	84.4	61.2	67	77.1	84.1
160	74.6		61.2		74.5	
200	72.1		61.2		72.1	
250	69.9	79.4	61.3	72	69.9	79.4
315	77.8		71.2		77.8	
400	69.9		65.1		69.9	
500	70.9	78	67.7	75.6	70.9	78
630	76.2		74.3		76.2	
800	73.1		72.3		73.1	
1,000	74.9	78.9	74.9	79	74.9	78.9
1,250	74.3		74.9		74.3	
1,600	74.5		75.5		74.4	
2,000	76	80.9	77.2	82.1	75.8	80.6
2,500	77.3		78.6		77	
3,150	78.3		79.5		77.8	
4,000	73.5	80.4	74.5	81.5	72.7	79.7
5,000	73.2		73.7		71.9	
6,300	72.7		72.6		70.7	
8,000	67.1	74.1	66	73.6	64.1	71.7
10,000	62.3		59.8		57.9	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 106.1 dB OASLA = 86.8 dB(A)

OASLC = 101.5 dB(C) C-A = 14.7 dB

**Table C-8: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F108 ENGINE AT MAXIMUM CONTINUOUS POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	79		0		0	
4	84	89.8	0	4.8	0	4.8
5	88		0		0	
6.3	89		0		0	
8	95	96.1	0	25.6	0	81.7
10	96		25.6		81.7	
12.5	97		33.6		85.8	
16	103	108.8	46.3	56.9	94.5	101.8
20	107		56.5		100.8	
25	107		62.3		102.6	
31.5	99	108.3	59.6	67.8	96	104.5
40	100		65.4		98	
50	91		60.8		89.7	
63	95.7	97.9	69.5	72.4	94.9	97.1
80	91		68.5		90.5	
100	82		62.9		81.7	
125	75.1	83.5	59	66.3	74.9	83.2
160	75.1		61.7		75	
200	75.4		64.5		75.4	
250	71.4	79.8	62.8	71.8	71.4	79.8
315	76.8		70.2		76.8	
400	71.9		67.1		71.9	
500	73.2	79.7	70	77.2	73.2	79.7
630	77.6		75.7		77.6	
800	72		71.2		72	
1,000	70.4	75.5	70.4	75.4	70.4	75.5
1,250	69.5		70.1		69.5	
1,600	67.2		68.2		67.1	
2,000	67.5	72.7	68.7	73.9	67.3	72.5
2,500	69		70.3		68.7	
3,150	71.4		72.6		70.9	
4,000	68.3	74.1	69.3	75.1	67.5	73.4
5,000	67		67.5		65.7	
6,300	66.2		66.1		64.2	
8,000	63.9	69.4	62.8	68.5	60.9	66.6
10,000	63		60.5		58.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 112 dB OASLA = 82.9 dB(A)

OASLC = 106.9 dB(C) C-A = 24 dB

**Table C-9: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F108 ENGINE AT MAXIMUM CONTINUOUS POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	81		0		0	
4	89	92.3	0	4.8	0	4.8
5	89		0		0	
6.3	91		0		0	
8	92	94.7	0	25.6	0	81.7
10	96		25.6		81.7	
12.5	97		33.6		85.8	
16	97	103	40.3	50.1	88.5	95.4
20	100		49.5		93.8	
25	102		57.3		97.6	
31.5	98	104.2	58.6	64.2	95	100.6
40	96		61.4		94	
50	94		63.8		92.7	
63	92.3	96.8	66.1	69.9	91.5	95.8
80	87.6		65.1		87.1	
100	84.1		65		83.8	
125	78.5	85.8	62.4	68.6	78.3	85.5
160	77		63.6		76.9	
200	73.6		62.7		73.6	
250	70.8	77.3	62.2	68.8	70.8	77.3
315	72.6		66		72.6	
400	71.9		67.1		71.9	
500	68.2	74.3	65	70.6	68.2	74.3
630	67.1		65.2		67.1	
800	65.1		64.3		65.1	
1,000	65.5	69.9	65.5	69.8	65.5	69.9
1,250	64.6		65.2		64.6	
1,600	64.2		65.2		64.1	
2,000	64	68.9	65.2	70.1	63.8	68.7
2,500	64.2		65.5		63.9	
3,150	66.6		67.8		66.1	
4,000	63.8	69.8	64.8	70.7	63	69
5,000	64		64.5		62.7	
6,300	67.3		67.2		65.3	
8,000	64.7	70.9	63.6	69.9	61.7	68
10,000	66		63.5		61.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 107.8 dB OASLA = 79 dB(A)

OASLC = 102.9 dB(C) C-A = 23.9 dB

**Table C-10: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F108 ENGINE AT TAKE-OFF POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	96		0		0	
4	97	102.3	0	4.8	0	4.8
5	99		0		0	
6.3	101		0		0	
8	102	105.1	0	32.6	0	88.7
10	103		32.6		88.7	
12.5	100		36.6		88.8	
16	99	103.1	42.3	46.4	90.5	94
20	94		43.5		87.8	
25	103		58.3		98.6	
31.5	102	105.7	62.6	64.8	99	102.1
40	92		57.4		90	
50	95		64.8		93.7	
63	96	99.6	69.8	73.7	95.2	98.7
80	92.8		70.3		92.3	
100	87.2		68.1		86.9	
125	82.5	89.5	66.4	72.9	82.3	89.3
160	82.7		69.3		82.6	
200	82.5		71.6		82.5	
250	81.6	86.9	73	78.4	81.6	86.9
315	82.1		75.5		82.1	
400	81.1		76.3		81.1	
500	81.4	86.3	78.2	83.3	81.4	86.3
630	82.1		80.2		82.1	
800	81.4		80.6		81.4	
1,000	80.4	84.9	80.4	84.8	80.4	84.9
1,250	78.1		78.7		78.1	
1,600	79.7		80.7		79.6	
2,000	82.2	88.4	83.4	89.7	82	88.2
2,500	86.4		87.7		86.1	
3,150	90.6		91.8		90.1	
4,000	88.2	93.6	89.2	94.6	87.4	92.8
5,000	86.6		87.1		85.3	
6,300	86.9		86.8		84.9	
8,000	83.8	89.2	82.7	88.6	80.8	86.7
10,000	80.3		77.8		75.9	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 111.4 dB OASLA = 97.1 dB(A)

OASLC = 106 dB(C) C-A = 7.9 dB

**Table C-11: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F108 ENGINE AT TAKE-OFF POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	80		0		0	
4	85	92.2	0	4.8	0	4.8
5	91		0		0	
6.3	89		0		0	
8	95	96.1	0	25.6	0	81.7
10	96		25.6		81.7	
12.5	95		31.6		83.8	
16	97	101.6	40.3	48.4	88.5	93.9
20	98		47.5		91.8	
25	98		53.3		93.6	
31.5	94	100.8	54.6	62	91	97.4
40	95		60.4		93	
50	94		63.8		92.7	
63	94.7	99	68.5	73.6	93.9	98.1
80	93.8		71.3		93.3	
100	83.4		64.3		83.1	
125	79	85.2	62.9	68	78.8	85
160	75.6		62.2		75.5	
200	73.4		62.5		73.4	
250	70.2	79	61.6	71.3	70.2	79
315	76.7		70.1		76.7	
400	70.8		66		70.8	
500	73.2	78.5	70	75.8	73.2	78.5
630	75.7		73.8		75.7	
800	75.4		74.6		75.4	
1,000	76.1	80.1	76.1	80	76.1	80.1
1,250	74.3		74.9		74.3	
1,600	75.5		76.5		75.4	
2,000	77.1	81.5	78.3	82.7	76.9	81.3
2,500	77.4		78.7		77.1	
3,150	78.3		79.5		77.8	
4,000	73.9	80.6	74.9	81.6	73.1	79.8
5,000	73.3		73.8		72	
6,300	72.8		72.7		70.8	
8,000	67.3	74.2	66.2	73.8	64.3	71.9
10,000	62.4		59.9		58	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 106.5 dB OASLA = 87.3 dB(A)

OASLC = 101.9 dB(C) C-A = 14.6 dB

**Table C-12: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F108 ENGINE AT TAKE-OFF POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	82		0		0	
4	86	91.3	0	4.8	0	4.8
5	89		0		0	
6.3	91		0		0	
8	95	96.6	0	26.6	0	82.7
10	97		26.6		82.7	
12.5	98		34.6		86.8	
16	103	108.2	46.3	56	94.5	101.1
20	106		55.5		99.8	
25	107		62.3		102.6	
31.5	99	108.3	59.6	67.8	96	104.5
40	100		65.4		98	
50	91		60.8		89.7	
63	96	98.6	69.8	73.4	95.2	97.8
80	92.9		70.4		92.4	
100	82.2		63.1		81.9	
125	75.2	83.6	59.1	66.2	75	83.3
160	74.7		61.3		74.6	
200	75.2		64.3		75.2	
250	71.2	80	62.6	72.1	71.2	80
315	77.3		70.7		77.3	
400	71.7		66.9		71.7	
500	74.2	78.5	71	75.7	74.2	78.5
630	74.8		72.9		74.8	
800	73.2		72.4		73.2	
1,000	71.3	76.4	71.3	76.1	71.3	76.4
1,250	69.5		70.1		69.5	
1,600	67.6		68.6		67.5	
2,000	67.2	72.5	68.4	73.7	67	72.3
2,500	68.3		69.6		68	
3,150	70.5		71.7		70	
4,000	67.7	73.3	68.7	74.3	66.9	72.5
5,000	66.2		66.7		64.9	
6,300	65.7		65.6		63.7	
8,000	63.9	69.4	62.8	68.4	60.9	66.5
10,000	64		61.5		59.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 111.8 dB OASLA = 82.6 dB(A)

OASLC = 106.8 dB(C) C-A = 24.2 dB

**Table C-13: T9NSS EXTERIOR NEAR FIELD NOISE
WITH F108 ENGINE AT TAKE-OFF POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	81		0		0	
4	88	93	0	4.8	0	4.8
5	91		0		0	
6.3	93		0		0	
8	91	95.3	0	25.6	0	81.7
10	96		25.6		81.7	
12.5	97		33.6		85.8	
16	97	103.5	40.3	51	88.5	96.1
20	101		50.5		94.8	
25	103		58.3		98.6	
31.5	98	104.8	58.6	64.4	95	101.1
40	96		61.4		94	
50	94		63.8		92.7	
63	92.4	97	66.2	70.3	91.6	96
80	88.7		66.2		88.2	
100	84.6		65.5		84.3	
125	79	86.2	62.9	69	78.8	86
160	77.2		63.8		77.1	
200	74.2		63.3		74.2	
250	71	77.9	62.4	69.5	71	77.9
315	73.6		67		73.6	
400	72.8		68		72.8	
500	68.6	75	65.4	71.2	68.6	75
630	67.1		65.2		67.1	
800	65.7		64.9		65.7	
1,000	66.1	70.5	66.1	70.4	66.1	70.5
1,250	65.2		65.8		65.2	
1,600	65		66		64.9	
2,000	64.9	69.6	66.1	70.8	64.7	69.4
2,500	64.7		66		64.4	
3,150	66.6		67.8		66.1	
4,000	64.4	69.9	65.4	70.9	63.6	69.2
5,000	64		64.5		62.7	
6,300	67.3		67.2		65.3	
8,000	65.3	71.1	64.2	70.1	62.3	68.2
10,000	66		63.5		61.6	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 108.3 dB OASLA = 79.5 dB(A)

OASLC = 103.4 dB(C) C-A = 23.9 dB

**Table C-14: T9NSS AVERAGE INTERIOR NOISE,
WITH F108 ENGINE AT FLIGHT IDLE POWER.
LOCATION: AVERAGE FROM POSITIONS I, M, & E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	97.8		0		0	
4	98.7	102.5	0	4.7	0	4.7
5	96.7		0		0	
6.3	99		0		0	
8	98.4	103.4	0	28.1	0	84.2
10	98.5		28.1		84.2	
12.5	98.7		35.3		87.5	
16	97.5	107.8	40.8	56.4	89	101
20	106.8		56.3		100.6	
25	105		60.3		100.6	
31.5	102.7	107.4	63.3	67.1	99.7	103.8
40	97.5		62.9		95.5	
50	98.1		67.9		96.8	
63	101.5	109.5	75.3	86.3	100.7	108.9
80	108.4		85.9		107.9	
100	112.4		93.3		112.1	
125	111.4	115.2	95.3	98.1	111.2	115
160	103.6		90.2		103.5	
200	100.2		89.3		100.2	
250	98.5	106.3	89.9	98.7	98.5	106.3
315	104.1		97.5		104.1	
400	108.7		103.9		108.7	
500	105.4	111.9	102.2	108.5	105.4	111.9
630	106.8		104.9		106.8	
800	105.9		105.1		105.9	
1,000	102.5	109.5	102.5	109.4	102.5	109.5
1,250	105.3		105.9		105.3	
1,600	102.2		103.2		102.1	
2,000	104.1	111.1	105.3	112.4	103.9	110.9
2,500	109.5		110.8		109.2	
3,150	104.8		106		104.3	
4,000	111.1	119.4	112.1	120	110.3	118.2
5,000	118.6		119.1		117.3	
6,300	106.2		106.1		104.2	
8,000	99.2	107.2	98.1	106.8	96.2	104.9
10,000	94.8		92.3		90.4	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 122.9 dB OASLA = 121.5 dB(A)

OASLC = 121.9 dB(C) C-A = 0.4 dB

**Table C-15: T9NSS AVERAGE INTERIOR NOISE
WITH F108 ENGINE AT MAXIMUM CONTINUOUS POWER.
LOCATION: AVERAGE FROM POSITIONS I, M, & E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	112.7		0		0	
4	114.6	119.5	0	4.7	0	4.7
5	116.2		0		0	
6.3	117.9		0		0	
8	114.4	121.1	0	45.6	0	101.7
10	116		45.6		101.7	
12.5	118.2		54.8		107	
16	116.2	121.6	59.5	66.6	107.7	113
20	115.9		65.4		109.7	
25	116.7		72		112.3	
31.5	116.8	121.6	77.4	84	113.8	118.6
40	117.2		82.6		115.2	
50	117.7		87.5		116.4	
63	120.9	134.5	94.7	111.8	120.1	134
80	134.3		111.8		133.8	
100	116.5		97.4		116.2	
125	113.4	120.6	97.3	105.2	113.2	120.4
160	116.9		103.5		116.8	
200	112.4		101.5		112.4	
250	114.4	121.6	105.8	114.4	114.4	121.6
315	120.1		113.5		120.1	
400	120.8		116		120.8	
500	118.8	124.3	115.6	120.9	118.8	124.3
630	118.7		116.8		118.7	
800	117		116.2		117	
1,000	115.1	120.7	115.1	120.5	115.1	120.7
1,250	115.5		116.1		115.5	
1,600	114.8		115.8		114.7	
2,000	115	120.9	116.2	122.1	114.8	120.7
2,500	118		119.3		117.7	
3,150	123.6		124.8		123.1	
4,000	124.1	132	125.1	132.7	123.3	130.9
5,000	130.5		131		129.2	
6,300	126.1		126		124.1	
8,000	117.2	126.9	116.1	126.6	114.2	124.7
10,000	115.6		113.1		111.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 138.0 dB OASLA = 134.5 dB(A)

OASLC = 136.9 dB(C) C-A = 2.5 dB

**Table C-16: T9NSS AVERAGE INTERIOR NOISE
WITH F-108 ENGINE AT TAKE-OFF POWER.
LOCATION: AVERAGE FROM POSITIONS I, M , & E.**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	114		0		0	
4	116.3	120.5	0	4.7	0	4.7
5	116.5		0		0	
6.3	117		0		0	
8	114.5	121	0	46.5	0	102.6
10	116.9		46.5		102.6	
12.5	118.9		55.5		107.7	
16	116.8	122.5	60.1	67.8	108.3	114
20	117.3		66.8		111.1	
25	117.7		73		113.3	
31.5	118.1	122.7	78.7	85	115.1	119.7
40	118.1		83.5		116.1	
50	118.5		88.3		117.2	
63	119.1	130.6	92.9	107.6	118.3	130
80	130		107.5		129.5	
100	117.6		98.5		117.3	
125	114.2	120	98.1	103.2	114	119.7
160	112.3		98.9		112.2	
200	111.5		100.6		111.5	
250	113.4	120.6	104.8	113.3	113.4	120.6
315	119		112.4		119	
400	121.8		117		121.8	
500	119.2	124.9	116	121.5	119.2	124.9
630	119.1		117.2		119.1	
800	118.4		117.6		118.4	
1,000	116.2	121.8	116.2	121.6	116.2	121.8
1,250	116.1		116.7		116.1	
1,600	115.3		116.3		115.2	
2,000	115.1	121.2	116.3	122.4	114.9	121
2,500	118.3		119.6		118	
3,150	123.5		124.7		123	
4,000	124.4	132.2	125.4	132.9	123.6	131.1
5,000	130.7		131.2		129.4	
6,300	126.1		126		124.1	
8,000	117.5	126.9	116.4	126.6	114.5	124.7
10,000	115.1		112.6		110.7	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 128.7 dB OASLA = 134.6 dB(A)

OASLC = 136.5 dB(C) C-A = 0.8 dB

APPENDIX D
Exterior Near-Field and Interior Noise on the
J57-59W Engine

(This page left blank)

TABLE D-1

**POWER CONDITIONS FOR EXTERIOR NEAR-FIELD AND
INTERIOR NOISE MEASUREMENTS FOR THE J57 ENGINE**

<u>POWER</u>	<u>%RPM</u>
Idle	65.0
80 % (Intermediate)	80.0
Military	94.4

Table D-2: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J57 ENGINE AT IDLE POWER.
LOCATION: MAIN DOOR

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	80		0		0	
4	82	87.1	0	4.8	0	4.8
5	84		0		0	
6.3	92		0		0	
8	94	96.2	0	22.6	0	78.7
10	93		22.6		78.7	
12.5	87		23.6		75.8	
16	84.1	89	27.4	30.6	75.6	79.2
20	76.1		25.6		69.9	
25	87		42.3		82.6	
31.5	84	88.9	44.6	47.4	81	85.1
40	74.4		39.8		72.4	
50	75.6		45.4		74.3	
63	74.6	79.2	48.4	53.2	73.8	78.3
80	72.7		50.2		72.2	
100	74.5		55.4		74.2	
125	69.8	76.1	53.7	58.5	69.6	75.8
160	64.6		51.2		64.5	
200	64.9		54		64.9	
250	60.8	67.3	52.2	58.2	60.8	67.3
315	60.5		53.9		60.5	
400	60.1		55.3		60.1	
500	58.5	64	55.3	60.7	58.5	64
630	58.9		57		58.9	
800	60.4		59.6		60.4	
1,000	63.2	74.2	63.2	74.7	63.2	74.2
1,250	73.6		74.2		73.6	
1,600	59.2		70.2		69.1	
2,000	68.9	78	70.1	79.2	68.7	77.7
2,500	76.7		78		76.4	
3,150	76.7		77.9		76.2	
4,000	79.3	82.7	80.3	83.6	78.5	81.8
5,000	77.2		77.7		75.9	
6,300	75.9		75.8		73.9	
8,000	73.9	78.8	72.8	78.1	70.9	76.2
10,000	71.2		68.7		66.8	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 99.4 dB OASLA = 86.1 dB(A)

OASLC = 89.4 dB(C) C-A = 3.3 dB

**Table D-3: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J57 ENGINE AT IDLE POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	69		0		0	
4	69	82.4	0	4.8	0	4.8
5	82		0		0	
6.3	80		0		0	
8	83	84.9	0	8.9	0	63.7
10	78		7.6		63.7	
12.5	77		13.6		65.8	
16	83	86.1	26.3	32.7	74.5	78.5
20	82		31.5		75.8	
25	82		37.3		77.6	
31.5	78	84.5	38.6	45.4	75	81.1
40	78		43.4		76	
50	75		44.8		73.7	
63	72	77.5	45.8	50.6	71.2	76.4
80	69.2		46.7		68.7	
100	68.5		49.4		68.2	
125	61.5	70.2	45.4	53.3	61.3	70
160	63.1		49.7		63	
200	64.4		53.5		64.4	
250	65.1	73.3	56.5	66.1	65.1	73.3
315	71.9		65.3		71.9	
400	76.1		71.3		76.1	
500	77.5	81.6	74.3	78.5	77.5	81.6
630	76.7		74.8		76.7	
800	77		76.2		77	
1,000	81	96.5	81	97	81	96.5
1,250	96.3		96.9		96.3	
1,600	78.3		79.3		78.2	
2,000	79.4	89.9	80.6	91.2	79.2	89.7
2,500	89.2		90.5		88.9	
3,150	84.5		85.7		84	
4,000	81	86.3	82	87.4	80.2	85.7
5,000	73.5		74		72.2	
6,300	67.7		67.6		65.7	
8,000	68.4	72.9	67.3	71.7	65.4	69.8
10,000	68.2		65.7		63.8	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 98.7 dB OASLA = 98.5 dB(A)

OASLC = 97.9 dB(C) C-A = -.6 dB

**Table D-4: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J57 ENGINE AT IDLE POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	70		0		0	
4	72	83.5	0	4.8	0	4.8
5	83		0		0	
6.3	83		0		0	
8	84	86.6	0	9.7	0	64.7
10	79		8.6		64.7	
12.5	79		15.6		67.8	
16	93.2	96.4	36.5	43.9	84.7	89.2
20	93.5		43		87.3	
25	92.8		48.1		88.4	
31.5	82.8	93.6	43.4	52	79.8	89.6
40	83.1		48.5		81.1	
50	74.2		44		72.9	
63	72.8	77.3	46.6	50.8	72	76.3
80	69.4		46.9		68.9	
100	65.9		46.8		65.6	
125	60.3	68	44.2	51.4	60.1	67.8
160	61.4		48		61.3	
200	62.5		51.6		62.5	
250	56.7	66.5	48.1	58.4	56.7	66.5
315	63.5		56.9		63.5	
400	69.1		64.3		69.1	
500	71	74.1	67.8	70.8	71	74.1
630	67.1		65.2		67.1	
800	66.2		65.4		66.2	
1,000	68.4	83.3	68.4	83.9	68.4	83.3
1,250	83.1		83.7		83.1	
1,600	66.4		67.4		66.3	
2,000	73.3	83.3	74.5	84.5	73.1	83
2,500	82.7		84		82.4	
3,150	74		75.2		73.5	
4,000	68.1	75.3	69.1	76.4	67.3	74.7
5,000	63.6		64.1		62.3	
6,300	59.3		59.2		57.3	
8,000	59.7	63.6	58.6	62.6	56.7	60.7
10,000	56.9		54.4		52.5	

*** OVERALL LEVELS (3.15 - 10000 Hz:) ***

OASPL = 99. dB OASLA = 87.7 dB(A)

OASLC = 93.6 dB(C) C-A = 5.9 dB

**Table D-5: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J57 ENGINE AT IDLE POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	72		0		0	
4	69	82.6	0	4.8	0	4.8
5	82		0		0	
6.3	77		0		0	
8	79	81.6	0	12.2	0	67.7
10	82		11.6		67.7	
12.5	80		16.6		68.8	
16	86.1	89.8	29.4	37	77.6	82.4
20	86.6		36.1		80.4	
25	90.3		45.6		85.9	
31.5	82.6	91.1	43.2	48.4	79.6	87
40	75.1		40.5		73.1	
50	71.8		41.6		70.5	
63	67.2	73.6	41	46.3	66.4	72.6
80	64.4		41.9		63.9	
100	63		43.9		62.7	
125	60.9	67.8	44.8	52.6	60.7	67.6
160	64.4		51		64.3	
200	62.6		51.7		62.6	
250	65.6	70.8	57	63.1	65.6	70.8
315	68.1		61.5		68.1	
400	69.6		64.8		69.6	
500	66.9	71.9	63.7	67.9	66.9	71.9
630	61.3		59.4		61.3	
800	64.1		63.3		64.1	
1,000	65.5	74.3	65.5	74.7	65.5	74.3
1,250	73.2		73.8		73.2	
1,600	61.6		62.6		61.5	
2,000	61.2	69.8	62.4	71	61	69.5
2,500	68.3		69.6		68	
3,150	64.9		66.1		64.4	
4,000	74.2	74.8	75.2	75.9	73.4	74.1
5,000	60.6		61.1		59.3	
6,300	57.5		57.4		55.5	
8,000	63.8	66.3	62.7	64.9	60.8	63
10,000	61		58.5		56.6	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 94.5 dB OASLA = 79.7 dB(A)

OASLC = 89 dB(C) C-A = 9.3 dB

**Table D-6: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J57 ENGINE AT 80% RPM.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	86		0		0	
4	87	90.6	0	4.8	0	4.8
5	84		0		0	
6.3	97		0		0	
8	100	101.9	0	29.6	0	85.7
10	100		29.6		85.7	
12.5	96		32.6		84.8	
16	96	99.7	39.3	43.4	87.5	90.7
20	91.1		40.6		84.9	
25	103.8		59.1		99.4	
31.5	97	104.7	57.6	62.1	94	100.7
40	88.6		54		86.6	
50	87.4		57.2		86.1	
63	87.8	92.3	61.6	67	87	91.4
80	87.3		64.8		86.8	
100	82.4		63.3		82.1	
125	78.2	84.8	62.1	68.2	78	84.6
160	78		64.6		77.9	
200	74.8		63.9		74.8	
250	69.8	77.1	61.2	67.9	69.8	77.1
315	70.5		63.9		70.5	
400	68.4		63.6		68.4	
500	67.7	72.3	64.5	69	67.7	72.3
630	66.4		64.5		66.4	
800	66.3		65.5		66.3	
1,000	66.1	71	66.1	70.9	66.1	71
1,250	66.2		66.8		66.2	
1,600	70.6		71.6		70.5	
2,000	86.8	87.2	88	88.4	86.6	87
2,500	75.8		77.1		75.5	
3,150	77.2		78.4		76.7	
4,000	89.1	90.4	90.1	91.3	88.3	89.5
5,000	83.5		84		82.2	
6,300	87.2		87.1		85.2	
8,000	84.8	90.2	83.7	89.4	81.8	87.5
10,000	83.4		80.9		79	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 108.4 dB OASLA = 94.7 dB(A)

OASLC = 102.3 dB(C) C-A = 7.6 dB

**Table D-7: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J57 ENGINE AT 80% RPM.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	74		0		0	
4	76	82.8	0	4.8	0	4.8
5	81		0		0	
6.3	86		0		0	
8	86	89.1	0	14.9	0	70.7
10	85		14.6		70.7	
12.5	85		21.6		73.8	
16	94.8	98.6	38.1	46.2	86.3	91.4
20	95.9		45.4		89.7	
25	97.1		52.4		92.7	
31.5	89.8	98.4	50.4	57.6	86.8	94.6
40	89.3		54.7		87.3	
50	85.6		55.4		84.3	
63	86	89.7	59.8	63.5	85.2	88.7
80	82.1		59.6		81.6	
100	79.8		60.7		79.5	
125	75.8	82.8	59.7	66.6	75.6	82.5
160	77.4		64		77.3	
200	75.5		64.6		75.5	
250	74.9	81.9	66.3	74.2	74.9	81.9
315	79.4		72.8		79.4	
400	85.9		81.1		85.9	
500	87.7	90.9	84.5	87.6	87.7	90.9
630	84.1		82.2		84.1	
800	81.9		81.1		81.9	
1,000	81.2	85.9	81.2	85.8	81.2	85.9
1,250	80.2		80.8		80.2	
1,600	80.9		81.9		80.8	
2,000	102.5	102.7	103.7	103.9	102.3	102.5
2,500	88.4		89.7		88.1	
3,150	86.3		87.5		85.8	
4,000	90.8	92.5	91.8	93.5	90	91.7
5,000	81.2		81.7		79.9	
6,300	80.8		80.7		78.8	
8,000	81.6	86.5	80.5	85.2	78.6	83.3
10,000	82.7		80.2		78.3	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 105.9 dB OASLA = 104.5 dB(A)

OASLC = 104.2 dB(C) C-A = -.3 dB

**Table D-8: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J57 ENGINE AT 80.0% RPM.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	72		0		0	
4	75	83.9	0	4.8	0	4.8
5	83		0		0	
6.3	87		0		0	
8	89	91.2	0	15.8	0	71.7
10	86		15.6		71.7	
12.5	90		26.6		78.8	
16	102.5	106.9	45.8	54.9	94	99.9
20	104.8		54.3		98.6	
25	104.6		59.9		100.2	
31.5	95	105.5	55.6	64	92	101.5
40	95.3		60.7		93.3	
50	84.9		54.7		83.6	
63	88.3	91.1	62.1	65.6	87.5	90.3
80	84.9		62.4		84.4	
100	78.3		59.2		78	
125	74.5	80.9	58.4	64.4	74.3	80.7
160	74.3		60.9		74.2	
200	73.6		62.7		73.6	
250	70.1	77.4	61.5	69	70.1	77.4
315	73.3		66.7		73.3	
400	78.3		73.5		78.3	
500	79	82.4	75.8	78.9	79	82.4
630	74.1		72.2		74.1	
800	70.3		69.5		70.3	
1,000	68.8	73.8	68.8	73.6	68.8	73.8
1,250	67.5		68.1		67.5	
1,600	72.3		73.3		72.2	
2,000	94.6	94.7	95.8	95.9	94.4	94.5
2,500	79.1		80.4		78.8	
3,150	74.4		75.6		73.9	
4,000	76.7	79.2	77.7	80.2	75.9	78.5
5,000	69.8		70.3		68.5	
6,300	70.6		70.5		68.6	
8,000	71	75.3	69.9	74.3	68	72.4
10,000	70		67.5		65.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 109.6 dB OASLA = 96.2 dB(A)

OASLC = 104.5 dB(C) C-A = 8.3 dB

**Table D-9: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J57 ENGINE AT 80% RPM.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	72		0		0	
4	73	83.7	0	4.8	0	4.8
5	83		0		0	
6.3	84		0		0	
8	85	87.7	0	17.7	0	73.7
10	88		17.6		73.7	
12.5	90		26.6		78.8	
16	97.8	101.2	41.1	48.3	89.3	93.8
20	97.8		47.3		91.6	
25	104.2		59.5		99.8	
31.5	94	104.7	54.6	61.9	91	100.6
40	90.1		55.5		88.1	
50	86		55.8		84.7	
63	83.2	88.5	57	61.5	82.4	87.4
80	79.7		57.2		79.2	
100	76.6		57.5		76.3	
125	72.5	79.4	56.4	63.2	72.3	79.2
160	73.8		60.4		73.7	
200	73.7		62.8		73.7	
250	75.3	80.2	66.7	72.3	75.3	80.2
315	76.8		70.2		76.8	
400	81.4		76.6		81.4	
500	78.3	83.5	75.1	79.6	78.3	83.5
630	73.1		71.2		73.1	
800	75.1		74.3		75.1	
1,000	75.3	79.4	75.3	79.3	75.3	79.4
1,250	73.2		73.8		73.2	
1,600	71.9		72.9		71.8	
2,000	77.6	79.8	78.8	80.9	77.4	79.5
2,500	73.3		74.6		73	
3,150	73.5		74.7		73	
4,000	70.5	75.7	71.5	76.8	69.7	75.1
5,000	65.9		66.4		64.6	
6,300	73.8		73.7		71.8	
8,000	72	76.5	70.9	75.8	69	73.9
10,000	66.7		64.2		62.3	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 106.6 dB OASLA = 86.1 dB(A)

OASLC = 101.8 dB(C) C-A = 15.7 dB

**Table D-10: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J57 ENGINE AT MILITARY POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	90		0		0	
4	96	99.1	0	4.8	0	4.8
5	95		0		0	
6.3	99		0		0	
8	102	103.9	0	29.6	0	85.7
10	100		29.6		85.7	
12.5	98		34.6		86.8	
16	97.9	101.7	41.2	45.6	89.4	92.8
20	93.6		43.1		87.4	
25	101.2		56.5		96.8	
31.5	95.4	102.9	56	62.4	92.4	99.1
40	94.2		59.6		92.2	
50	91.7		61.5		90.4	
63	96.5	101.4	70.3	77.5	95.7	100.7
80	98.9		76.4		98.4	
100	90.8		71.7		90.5	
125	88.1	93.7	72	77.3	87.9	93.5
160	87		73.6		86.9	
200	83.8		72.9		83.8	
250	83	92.2	74.4	85	83	92.2
315	90.9		84.3		90.9	
400	86.7		81.9		86.7	
500	84.8	90.2	81.6	86.8	84.8	90.2
630	84.3		82.4		84.3	
800	84.4		83.6		84.4	
1,000	84.9	89.8	84.9	89.8	84.9	89.8
1,250	85.6		86.2		85.6	
1,600	88.1		89.1		88	
2,000	89.6	94.9	90.8	96.1	89.4	94.7
2,500	91.9		93.2		91.6	
3,150	92.2		93.4		91.7	
4,000	90.1	96	91.1	96.9	89.3	95.1
5,000	91		91.5		89.7	
6,300	90.6		90.5		88.6	
8,000	89	93.8	87.9	93	86	91.1
10,000	86.8		84.3		82.4	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 110.2 dB OASLA = 101.1 dB(A)

OASLC = 105.5 dB(C) C-A = 4.4 dB

**Table D-11: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J57 ENGINE AT MILITARY POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	80		0		0	
4	83	89	0	4.8	0	4.8
5	87		0		0	
6.3	90		0		0	
8	92	94.3	0	24.6	0	80.7
10	95		24.6		80.7	
12.5	95		31.6		83.8	
16	98.1	102.4	41.4	49.2	89.6	94.7
20	98.8		48.3		92.6	
25	97.9		53.2		93.5	
31.5	92.5	99.7	53.1	59.3	89.5	96
40	91.1		56.5		89.1	
50	91.4		61.2		90.1	
63	94.1	97.2	67.9	71.6	93.3	96.3
80	91		68.5		90.5	
100	87.7		68.6		87.4	
125	81.7	89.7	65.6	73	81.5	89.5
160	82.9		69.5		82.8	
200	82.5		71.6		82.5	
250	85.9	97.9	77.3	91.1	85.9	97.9
315	97.5		90.9		97.5	
400	100.7		95.9		100.7	
500	104.4	107.3	101.2	104.2	104.4	107.3
630	101.5		99.6		101.5	
800	100.3		99.5		100.3	
1,000	100.7	104.9	100.7	104.8	100.7	104.9
1,250	99.2		99.8		99.2	
1,600	93.7		94.7		93.6	
2,000	97.5	102.5	98.7	103.8	97.3	102.3
2,500	100		101.3		99.7	
3,150	98.5		99.7		98	
4,000	88.2	99	89.2	100.2	87.4	98.5
5,000	84.6		85.1		83.3	
6,300	79.1		79		77.1	
8,000	81	85.3	79.9	84	78	82.1
10,000	81.2		78.7		76.8	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 111.9 dB OASLA = 109.7 dB(A)

OASLC = 111 dB(C) C-A = 1.3 dB

**Table D.12: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J57 ENGINE AT MILITARY POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	78		0		0	
4	83	89.5	0	4.8	0	4.8
5	88		0		0	
6.3	90		0		0	
8	94	95.5	0	26.6	0	82.7
10	97		26.6		82.7	
12.5	99		35.6		87.8	
16	106.1	109.9	49.4	57.3	97.6	102.6
20	107		56.5		100.8	
25	105.2		60.5		100.8	
31.5	96.6	106.7	57.2	66.8	93.6	103
40	99.6		65		97.6	
50	89.7		59.5		88.4	
63	95.6	98.6	69.4	74	94.8	97.9
80	94.4		71.9		93.9	
100	85.1		66		84.8	
125	82.9	88.6	66.8	72.6	82.7	88.4
160	83.2		69.8		83.1	
200	83.7		72.8		83.7	
250	83.1	93.5	74.5	86.5	83.1	93.5
315	92.6		86		92.6	
400	95.1		90.3		95.1	
500	97.3	100.4	94.1	97.1	97.3	100.4
630	93.5		91.6		93.5	
800	90.1		89.3		90.1	
1,000	88.2	93.3	88.2	93.1	88.2	93.3
1,250	86.7		87.3		86.7	
1,600	85.6		86.6		85.5	
2,000	93.2	97.1	94.4	98.4	93	96.9
2,500	94.3		95.6		94	
3,150	91.7		92.9		91.2	
4,000	78.8	92	79.8	93.2	78	91.5
5,000	76.4		76.9		75.1	
6,300	72.1		72		70.1	
8,000	74.5	77.7	73.4	76.6	71.5	74.7
10,000	71.7		69.2		67.3	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 112.7 dB OASLA = 102.2 dB(A)

OASLC = 108.3 dB(C) C-A = 6.1 dB

**Table D-13: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J57 ENGINE AT MILITARY POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	80		0		0	
4	85	90.8	0	4.8	0	4.8
5	89		0		0	
6.3	89		0		0	
8	92	93.9	0	24.6	0	80.7
10	95		24.6		80.7	
12.5	99		35.6		87.8	
16	99.6	104	42.9	49.8	91.1	95.8
20	99.1		48.6		92.9	
25	104.3		59.6		99.9	
31.5	97.2	105.9	57.8	66	94.2	102.3
40	98.5		63.9		96.5	
50	94.9		64.7		93.6	
63	94.9	98.7	68.7	72.4	94.1	97.8
80	91		68.5		90.5	
100	90		70.9		89.7	
125	83.7	91.9	67.6	75.2	83.5	91.7
160	85.1		71.7		85	
200	85.3		74.4		85.3	
250	83.4	91.7	74.8	84.1	83.4	91.7
315	89.6		83		89.6	
400	93		88.2		93	
500	90.1	96	86.9	92.4	90.1	96
630	89.7		87.8		89.7	
800	92.2		91.4		92.2	
1,000	92.7	96.8	92.7	96.8	92.7	96.8
1,250	91.2		91.8		91.2	
1,600	91		92		90.9	
2,000	91.1	96.5	92.3	97.7	90.9	96.3
2,500	92.9		94.2		92.6	
3,150	91.7		92.9		91.2	
4,000	85.2	92.9	86.2	94	84.4	92.3
5,000	81.8		82.3		80.5	
6,300	80		79.9		78	
8,000	81.7	85.3	80.6	84.2	78.7	82.3
10,000	79.6		77.1		75.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 109.9 dB OASLA = 101.9 dB(A)

OASLC = 106.5 dB(C) C-A = 4.6 dB

Table D-14: T9NSS AVERAGE INTERIOR NOISE
WITH J57 ENGINE AT IDLE POWER.
LOCATION: AVERAGE FROM POSITIONS I , M, \$ E

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	99.6		0		0	
4	99.9	104.2	0	4.7	0	4.7
5	98.8		0		0	
6.3	102.3		0		0	
8	100	105.6	0	29.3	0	85.4
10	99.7		29.3		85.4	
12.5	98.2		34.8		87	
16	95.5	101.4	38.8	46.4	87	92.8
20	95.8		45.3		89.6	
25	93.8		49.1		89.4	
31.5	91.8	98.7	52.4	61.7	88.8	95.8
40	95.5		60.9		93.5	
50	95.2		65		93.9	
63	92.3	98.4	66.1	72.6	91.5	97.4
80	92.9		70.4		92.4	
100	93.9		74.8		93.6	
125	92	97.2	75.9	80.9	91.8	96.9
160	90.9		77.5		90.8	
200	90.9		80		90.9	
250	91.3	96.8	82.7	88.8	91.3	96.8
315	93.5		86.9		93.5	
400	94.6		89.8		94.6	
500	94	99.3	90.8	96.2	94	99.3
630	95		93.1		95	
800	96.2		95.4		96.2	
1,000	101.2	114.1	101.2	114.7	101.2	114.1
1,250	113.9		114.5		113.9	
1,600	103.8		104.8		103.7	
2,000	102.1	110.7	103.3	112	101.9	110.5
2,500	109		110.3		108.7	
3,150	105.1		106.3		104.6	
4,000	114.4	115.4	115.4	116.3	113.6	114.6
5,000	106.2		106.7		104.9	
6,300	104		103.9		102	
8,000	104.4	108.5	103.3	107.5	101.4	105.6
10,000	102.7		100.2		98.3	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 119.6 dB OASLA = 119.8 dB(A)

OASLC = 118.6 dB(C) C-A = -1.2 dB

Table D-15: T9NSS AVERAGE INTERIOR NOISE
WITH J57 ENGINE AT INTERMEDIATE POWER.
LOCATION: AVERAGE FROM POSITIONS I, M, & E

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	103.8		0		0	
4	104.9	108.8	0	4.7	0	4.7
5	103.4		0		0	
6.3	106.6		0		0	
8	107.2	112	0	37.6	0	93.7
10	108		37.6		93.7	
12.5	108.8		45.4		97.6	
16	108.2	113.4	51.5	59.3	99.7	105.2
20	108.9		58.4		102.7	
25	108.4		63.7		104	
31.5	106.3	112.3	66.9	74.4	103.3	109.2
40	107.8		73.2		105.8	
50	106.9		76.7		105.6	
63	104.2	109.9	78	83.9	103.4	109
80	103.9		81.4		103.4	
100	104.6		85.5		104.3	
125	104.4	108.8	88.3	92.9	104.2	108.6
160	103.2		89.8		103.1	
200	101.6		90.7		101.6	
250	101.6	106.9	93	98.8	101.6	106.9
315	103.1		96.5		103.1	
400	104.5		99.7		104.5	
500	104.9	109.6	101.7	106.5	104.9	109.6
630	105.2		103.3		105.2	
800	106.2		105.4		106.2	
1,000	106.6	111.3	106.6	111.3	106.6	111.3
1,250	107		107.6		107	
1,600	108		109		107.9	
2,000	120.7	121.2	121.9	122.4	120.5	121
2,500	109.4		110.7		109.1	
3,150	109		110.2		108.5	
4,000	118.2	119.7	119.2	120.6	117.4	118.8
5,000	112.9		113.4		111.6	
6,300	118.3		118.2		116.3	
8,000	115.7	121.4	114.6	120.6	112.7	118.7
10,000	115.6		113.1		111.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 126.8 dB OASLA = 126.3 dB(A)

OASLC = 125.2 dB(C) C-A = -1.1 dB

**Table D-16: T9NSS AVERAGE INTERIOR NOISE
WITH J57 ENGINE AT MILITARY POWER.
LOCATION: AVERAGE FROM POSITIONS I, M, & E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	103.1		0		0	
4	102.5	107.2	0	4.7	0	4.7
5	101.9		0		0	
6.3	103		0		0	
8	102.7	107.2	0	31.2	0	87.3
10	101.6		31.2		87.3	
12.5	101.9		38.5		90.7	
16	101.4	108.5	44.7	56.1	92.9	101.2
20	106.3		55.8		100.1	
25	105.6		60.9		101.2	
31.5	103.9	110.4	64.5	73.3	100.9	107.5
40	107		72.4		105	
50	107.1		76.9		105.8	
63	109.5	112.8	83.3	87.4	108.7	111.9
80	107.1		84.6		106.6	
100	107.5		88.4		107.2	
125	109.3	113.5	93.2	98.2	109.1	113.3
160	109.3		95.9		109.2	
200	112.5		101.6		112.5	
250	114.4	125.2	105.8	118.3	114.4	125.2
315	124.6		118		124.6	
400	122.5		117.7		122.5	
500	123.6	127.9	120.4	124.9	123.6	127.9
630	123.4		121.5		123.4	
800	122.5		121.7		122.5	
1,000	123.1	127.6	123.1	127.6	123.1	127.6
1,250	123.1		123.7		123.1	
1,600	123.9		124.9		123.8	
2,000	122.6	127.7	123.8	128.9	122.4	127.6
2,500	122.4		123.7		122.1	
3,150	121.1		122.3		120.6	
4,000	121.1	125.3	122.1	126.2	120.3	124.5
5,000	119.1		119.6		117.8	
6,300	118.6		118.5		116.6	
8,000	117.4	122.1	116.3	121.2	114.4	119.3
10,000	115.7		113.2		111.3	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 134.3 dB OASLA = 133.6 dB(A)

OASLC = 134.0 dB(C) C-A = .4 dB

APPENDIX E
Exterior Near-Field and Interior Noise on the
J85-5 Engine

(This page left blank)

TABLE E-1
POWER CONDITIONS FOR EXTERIOR NEAR-FIELD AND
INTERIOR NOISE MEASUREMENTS FOR THE J85 ENGINE

<u>POWER</u>	<u>%RPM</u>
Idle	49.0
Military	100.0
Afterburner	100.0

**Table E-2: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J85 ENGINE AT IDLE POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	72		0		0	
4	70	79.5	0	4.8	0	4.8
5	78		0		0	
6.3	76		0		0	
8	77	80.2	0	7.5	0	61.7
10	76		5.6		61.7	
12.5	75		11.6		63.8	
16	78	82.9	21.3	30.2	69.5	75.5
20	80		29.5		73.8	
25	78		33.3		73.6	
31.5	77	81.4	37.6	42.2	74	78.1
40	74		39.4		72	
50	65		34.8		63.7	
63	72.3	74.2	46.1	48.9	71.5	73.4
80	67.8		45.3		67.3	
100	65.8		46.7		65.5	
125	61.2	68.2	45.1	51.6	61	67.9
160	61.5		48.1		61.4	
200	60.6		49.7		60.6	
250	55.2	62.7	46.6	53.4	55.2	62.7
315	55.7		49.1		55.7	
400	55.3		50.5		55.3	
500	53.8	59.7	50.6	56.5	53.8	59.7
630	55.4		53.5		55.4	
800	53.8		53		53.8	
1,000	53.5	58	53.5	57.9	53.5	58
1,250	52.2		52.8		52.2	
1,600	53.6		54.6		53.5	
2,000	58.1	62.4	59.3	63.6	57.9	62.1
2,500	59.3		60.6		59	
3,150	63.2		64.4		62.7	
4,000	86.2	86.6	87.2	87.5	85.4	85.7
5,000	75.4		75.9		74.1	
6,300	68.6		68.5		66.6	
8,000	82.8	83.2	81.7	82.1	79.8	80.2
10,000	71.3		68.8		66.9	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 91 dB OASLA = 88.7 dB(A)

OASLC = 87.9 dB(C) C-A = -.8 dB

**Table E-3: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J85 ENGINE AT IDLE POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	69		0		0	
4	67	75.8	0	4.8	0	4.8
5	74		0		0	
6.3	71		0		0	
8	72	75.6	0	6.3	0	59.7
10	74		3.6		59.7	
12.5	76		12.6		64.8	
16	78	82.2	21.3	28.5	69.5	74.3
20	78		27.5		71.8	
25	77		32.3		72.6	
31.5	77	81.2	37.6	42.7	74	78
40	75		40.4		73	
50	70		39.8		68.7	
63	70	74.3	43.8	48.5	69.2	73.4
80	68.3		45.8		67.8	
100	65.4		46.3		65.1	
125	60.1	67.6	44	51	59.9	67.4
160	61		47.6		60.9	
200	62		51.1		62	
250	61.8	67.3	53.2	59.2	61.8	67.3
315	63.6		57		63.6	
400	63.9		59.1		63.9	
500	65.7	69.2	62.5	66	65.7	69.2
630	63.2		61.3		63.2	
800	62		61.2		62	
1,000	61.9	66.5	61.9	66.5	61.9	66.5
1,250	61.4		62		61.4	
1,600	60.6		61.6		60.5	
2,000	67	71.4	68.2	72.6	66.8	71.1
2,500	68.8		70.1		68.5	
3,150	70.8		72		70.3	
4,000	75.2	78.2	76.2	79.1	74.4	77.3
5,000	73.1		73.6		71.8	
6,300	60.5		60.4		58.5	
8,000	76.1	77.2	75	75.9	73.1	74
10,000	70.4		67.9		66	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 87.6 dB OASLA = 81.6 dB(A)

OASLC = 83.6 dB(C) C-A = 1.9 dB

**Table E-4: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J85 ENGINE AT IDLE POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	70		0		0	
4	66	76.6	0	4.8	0	4.8
5	75		0		0	
6.3	73		0		0	
8	74	77.4	0	6.3	0	59.7
10	74		3.6		59.7	
12.5	75		11.6		63.8	
16	78	82	21.3	28.5	69.5	74.2
20	78		27.5		71.8	
25	79		34.3		74.6	
31.5	76	81.8	36.6	42.6	73	78.4
40	75		40.4		73	
50	73		42.8		71.7	
63	68.3	74.5	42.1	46.5	67.5	73.4
80	62.2		39.7		61.7	
100	64.2		45.1		63.9	
125	60.8	68.1	44.7	52.6	60.6	67.9
160	64.2		50.8		64.1	
200	57.6		46.7		57.6	
250	51.4	60.1	42.8	51.3	51.4	60.1
315	54.9		48.3		54.9	
400	53.6		48.8		53.6	
500	56.8	60.2	53.6	57.1	56.8	60.2
630	55.2		53.3		55.2	
800	51.1		50.3		51.1	
1,000	52.3	57.1	52.3	57.1	52.3	57.1
1,250	53.2		53.8		53.2	
1,600	52.1		53.1		52	
2,000	60.2	65.4	61.4	66.6	60	65.1
2,500	63.5		64.8		63.2	
3,150	63.9		65.1		63.4	
4,000	67	70.4	68	71.3	66.2	69.5
5,000	65.4		65.9		64.1	
6,300	54.3		54.2		52.3	
8,000	69.8	70.7	68.7	69.5	66.8	67.6
10,000	63.1		60.6		58.7	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 86.9 dB OASLA = 74.5 dB(A)

OASLC = 81.6 dB(C) C-A = 7.1 dB

**Table E-5: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J85 ENGINE AT IDLE POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	68		0		0	
4	67	78.7	0	4.8	0	4.8
5	78		0		0	
6.3	69		0		0	
8	72	74.8	0	6.3	0	59.7
10	74		3.6		59.7	
12.5	76		12.6		64.8	
16	78	82.6	21.3	29.4	69.5	74.9
20	79		28.5		72.8	
25	79		34.3		74.6	
31.5	77	82.1	37.6	42.9	74	78.7
40	75		40.4		73	
50	71		40.8		69.7	
63	70	74.4	43.8	48	69.2	73.4
80	66.9		44.4		66.4	
100	61.3		42.2		61	
125	58.7	66.1	42.6	51	58.5	65.9
160	63		49.6		62.9	
200	61.7		50.8		61.7	
250	60.7	66.5	52.1	58.4	60.7	66.5
315	62.7		56.1		62.7	
400	60.2		55.4		60.2	
500	56.7	62.4	53.5	58.5	56.7	62.4
630	53.3		51.4		53.3	
800	52.9		52.1		52.9	
1,000	53.5	57.3	53.5	57.2	53.5	57.3
1,250	50.8		51.4		50.8	
1,600	50.1		51.1		50	
2,000	53.7	57.3	54.9	58.5	53.5	57.1
2,500	53		54.3		52.7	
3,150	54.1		55.3		53.6	
4,000	59.8	62.3	60.8	63.2	59	61.4
5,000	56.9		57.4		55.6	
6,300	45.5		45.4		43.5	
8,000	56.1	57.4	55	56.2	53.1	54.3
10,000	50.4		47.9		46	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 87.1 dB OASLA = 67.3 dB(A)

OASLC = 81.5 dB(C) C-A = 14.2 dB

**Table E-6: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J85 ENGINE AT MILITARY POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	88		0		0	
4	89	93.5	0	4.8	0	4.8
5	89		0		0	
6.3	97		0		0	
8	101	102.6	0	30.6	0	86.7
10	101		30.6		86.7	
12.5	97		33.6		85.8	
16	93	98.8	36.3	40.4	84.5	88.9
20	87		36.5		80.8	
25	101		56.3		96.6	
31.5	100	103.7	60.6	62.7	97	100
40	89		54.4		87	
50	94		63.8		92.7	
63	93.3	97.4	67.1	70.9	92.5	96.5
80	89.4		66.9		88.9	
100	87.7		68.6		87.4	
125	86	92.2	69.9	76.7	85.8	92
160	88.2		74.8		88.1	
200	83.5		72.6		83.5	
250	82.1	87.8	73.5	79.5	82.1	87.8
315	83.4		76.8		83.4	
400	86.2		81.4		86.2	
500	83.3	88.9	80.1	85.2	83.3	88.9
630	81.5		79.6		81.5	
800	81.6		80.8		81.6	
1,000	81.7	86.2	81.7	86.2	81.7	86.2
1,250	81.1		81.7		81.1	
1,600	83.2		84.2		83.1	
2,000	84.3	89	85.5	90.2	84.1	88.8
2,500	85.1		86.4		84.8	
3,150	85.1		86.3		84.6	
4,000	85.3	89.9	86.3	90.8	84.5	89.1
5,000	85		85.5		83.7	
6,300	84		83.9		82	
8,000	84.8	88.2	83.7	87.3	81.8	85.4
10,000	80.1		77.6		75.7	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 108.7 dB OASLA = 95.7 dB(A)

OASLC = 103.2 dB(C) C-A = 7.6 dB

**Table E-7: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J85 ENGINE AT MILITARY POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	76		0		0	
4	77	86.1	0	4.8	0	4.8
5	85		0		0	
6.3	88		0		0	
8	88	91.1	0	14	0	69.7
10	84		13.6		69.7	
12.5	84		20.6		72.8	
16	92	95.8	35.3	43.3	83.5	88.6
20	93		42.5		86.8	
25	95		50.3		90.6	
31.5	91	98.4	51.6	60.5	88	95.3
40	94		59.4		92	
50	95		64.8		93.7	
63	91.2	96.9	65	69.2	90.4	95.8
80	85.7		63.2		85.2	
100	83.7		64.6		83.4	
125	86.4	90.9	70.3	75.9	86.2	90.7
160	87.4		74		87.3	
200	85.6		74.7		85.6	
250	89.2	98.8	80.6	91.8	89.2	98.8
315	98		91.4		98	
400	102.5		97.7		102.5	
500	106.1	108.7	102.9	105.4	106.1	108.7
630	101.7		99.8		101.7	
800	98.7		97.9		98.7	
1,000	97.6	102.2	97.6	102	97.6	102.2
1,250	95.5		96.1		95.5	
1,600	92.6		93.6		92.5	
2,000	98.7	102.3	99.9	103.6	98.5	102.1
2,500	99		100.3		98.7	
3,150	96.2		97.4		95.7	
4,000	88.1	97.1	89.1	98.2	87.3	96.5
5,000	85.2		85.7		83.9	
6,300	78.5		78.4		76.5	
8,000	81.3	84.2	80.2	83.2	78.3	81.3
10,000	77.8		75.3		73.4	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 111.4 dB OASLA = 109.1 dB(A)

OASLC = 111.1 dB(C) C-A = 2 dB

Table E-8: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J85 ENGINE AT MILITARY POWER.
LOCATION: VIEW WINDOW

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	75		0		0	
4	77	86.8	0	4.8	0	4.8
5	86		0		0	
6.3	90		0		0	
8	89	92.6	0	15.8	0	71.7
10	86		15.6		71.7	
12.5	88		24.6		76.8	
16	98	106.7	41.3	55.7	89.5	100.2
20	106		55.5		99.8	
25	105		60.3		100.6	
31.5	96	106.2	56.6	65.7	93	102.4
40	98		63.4		96	
50	90		59.8		88.7	
63	86.8	92.2	60.6	64.9	86	91.1
80	82.5		60		82	
100	84.8		65.7		84.5	
125	84.3	89.2	68.2	73.5	84.1	89
160	84.2		70.8		84.1	
200	81.2		70.3		81.2	
250	81.6	87.1	73	79.2	81.6	87.1
315	83.8		77.2		83.8	
400	92.6		87.8		92.6	
500	94.2	97.6	91	94.3	94.2	97.6
630	91.2		89.3		91.2	
800	86.1		85.3		86.1	
1,000	85.6	90.3	85.6	90.2	85.6	90.3
1,250	84.8		85.4		84.8	
1,600	82.5		83.5		82.4	
2,000	90.3	93.8	91.5	95.1	90.1	93.6
2,500	90.7		92		90.4	
3,150	88.8		90		88.3	
4,000	77.9	89.4	78.9	90.5	77.1	88.2
5,000	76.5		77		75.2	
6,300	70		69.9		68	
8,000	73.6	76.2	72.5	75.1	70.6	73.2
10,000	69.6		67.1		65.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 110.2 dB OASLA = 99.2 dB(A)

OASLC = 106.1 dB(C) C-A = 6.9 dB

**Table E-9: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J85 ENGINE AT MILITARY POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	76		0		0	
4	77	83.3	0	4.8	0	4.8
5	81		0		0	
6.3	84		0		0	
8	86	88.4	0	18.7	0	74.7
10	89		18.6		74.7	
12.5	90		26.6		78.8	
16	92	101	35.3	49.7	83.5	94.3
20	100		49.5		93.8	
25	101		56.3		96.6	
31.5	96	102.5	56.6	61.2	93	98.7
40	91		56.4		89	
50	91		60.8		89.7	
63	87.6	93	61.4	65.4	86.8	91.9
80	82		59.5		81.5	
100	82.2		63.1		81.9	
125	82.2	88.1	66.1	73.1	82	87.9
160	84.9		71.5		84.8	
200	88.3		77.4		88.3	
250	91.9	100.1	83.3	93	91.9	100.1
315	99		92.4		99	
400	99.2		94.4		99.2	
500	98.8	102.7	95.6	99	98.8	102.7
630	94		92.1		94	
800	95.7		94.9		95.7	
1,000	95.9	99.9	95.9	99.7	95.9	99.9
1,250	93.3		93.9		93.3	
1,600	90.8		91.8		90.7	
2,000	90.9	95.2	92.1	96.4	90.7	95.1
2,500	89.6		90.9		89.3	
3,150	89		90.2		88.5	
4,000	82.2	90.1	83.2	91.2	81.4	89.5
5,000	78.3		78.8		77	
6,300	75		74.9		73	
8,000	74.8	79.4	73.7	78.4	71.8	76.5
10,000	74		71.5		69.6	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 108.9 dB OASLA = 104 dB(A)

OASLC = 107.4 dB(C) C-A = 3.4 dB

**Table E-10: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J85 ENGINE AT AFTERBURNER POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	85		0		0	
4	89	94.3	0	4.8	0	4.8
5	92		0		0	
6.3	98		0		0	
8	102	103.5	0	34.6	0	90.7
10	105		34.6		90.7	
12.5	100		36.6		88.8	
16	98	102.4	41.3	44.7	89.5	92.9
20	91		40.5		84.8	
25	103		58.3		98.6	
31.5	103	106.2	63.6	65.6	100	102.7
40	93		58.4		91	
50	101		70.8		99.7	
63	100.5	104.4	74.3	77.7	99.7	103.4
80	95.4		72.9		94.9	
100	93.9		74.8		93.6	
125	93.9	99	77.8	83.5	93.7	98.8
160	94.7		81.3		94.6	
200	89.5		78.6		89.5	
250	88.1	93.5	79.5	85	88.1	93.5
315	88.5		81.9		88.5	
400	90.2		85.4		90.2	
500	88.8	93.5	85.6	90	88.8	93.5
630	86.6		84.7		86.6	
800	85.9		85.1		85.9	
1,000	85	89.8	85	89.7	85	89.8
1,250	84.1		84.7		84.1	
1,600	85.8		86.8		85.7	
2,000	87	92	88.2	93.2	86.8	91.7
2,500	88.4		89.7		88.1	
3,150	88.7		89.9		88.2	
4,000	88.8	93.5	89.8	94.4	88	92.6
5,000	88.6		89.1		87.3	
6,300	88.1		88		86.1	
8,000	87.5	91.6	86.4	90.8	84.5	88.9
10,000	83.5		81		79.1	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 112.1 dB OASLA = 99.3 dB(A)

OASLC = 107.8 dB(C) C-A = 8.5 dB

**Table E-11: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J85 ENGINE AT AFTERBURNER POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	77		0		0	
4	80	87.4	0	4.8	0	4.8
5	86		0		0	
6.3	89		0		0	
8	92	93.9	0	21.7	0	77.7
10	92		21.6		77.7	
12.5	89		25.6		77.8	
16	96	99.9	39.3	47.3	87.5	92.6
20	97		46.5		90.8	
25	98		53.3		93.6	
31.5	95	102.4	55.6	65.2	92	99.5
40	99		64.4		97	
50	99		68.8		97.7	
63	97.1	102	70.9	75.4	96.3	101
80	94.2		71.7		93.7	
100	95		75.9		94.7	
125	94.6	99.5	78.5	83.8	94.4	99.3
160	94.6		81.2		94.5	
200	90.6		79.7		90.6	
250	95.1	103.2	86.5	96.2	95.1	103.2
315	102.2		95.6		102.2	
400	106.1		101.3		106.1	
500	109.6	112.1	106.4	108.8	109.6	112.1
630	104.8		102.9		104.8	
800	102.8		102		102.8	
1,000	100.9	105.8	100.9	105.6	100.9	105.8
1,250	98.3		98.9		98.3	
1,600	95.1		96.1		95	
2,000	101.4	105.5	102.6	106.8	101.2	105.3
2,500	102.7		104		102.4	
3,150	100.4		101.6		99.9	
4,000	92.1	101.2	93.1	102.4	91.3	100.7
5,000	88.6		89.1		87.3	
6,300	82.2		82.1		80.2	
8,000	83.5	87	82.4	86	80.5	84.1
10,000	80.5		78		76.1	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 115.1 dB OASLA = 112.6 dB(A)

OASLC = 114.8 dB(C) C-A = 2.2 dB

Table E-12: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J85 ENGINE AT AFTERBURNER POWER.
LOCATION: VIEW WINDOW

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	78		0		0	
4	79	88.9	0	4.8	0	4.8
5	88		0		0	
6.3	93		0		0	
8	94	96.6	0	22.6	0	78.7
10	93		22.6		78.7	
12.5	91		27.6		79.8	
16	101	108.1	44.3	56.8	92.5	101.4
20	107		56.5		100.8	
25	106		61.3		101.6	
31.5	99	107.8	59.6	68.2	96	104.2
40	101		56.4		99	
50	95		64.8		93.7	
63	92.6	97.9	66.4	71.5	91.8	96.9
80	90.7		68.2		90.2	
100	91.5		72.4		91.2	
125	88.3	94	72.2	77.2	88.1	93.7
160	86.1		72.7		86	
200	87.9		77		87.9	
250	83.2	93.8	74.6	86.3	83.2	93.8
315	92		85.4		92	
400	97.5		92.7		97.5	
500	101.7	104.1	98.5	100.9	101.7	104.1
630	97		95.1		97	
800	95.2		94.4		95.2	
1,000	92.2	97.9	92.2	97.6	92.2	97.9
1,250	90.6		91.2		90.6	
1,600	87.1		88.1		87	
2,000	95.1	99.1	96.3	100.3	94.9	98.8
2,500	96.4		97.7		96.1	
3,150	92.9		94.1		92.4	
4,000	83.3	93.6	84.3	94.7	82.5	93
5,000	81		81.5		79.7	
6,300	75.4		75.3		73.4	
8,000	76.8	80.2	75.7	79.2	73.8	77.3
10,000	73.5		71		69.1	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 112.7 dB OASLA = 105.1 dB(A)

OASLC = 109.6 dB(C) C-A = 4.5 dB

**Table E-13: T9NSS EXTERIOR NEAR FIELD NOISE
WITH J85 ENGINE AT AFTERBURNER POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	77		0		0	
4	79	85.8	0	4.8	0	4.8
5	84		0		0	
6.3	85		0		0	
8	88	90	0	19.7	0	75.7
10	90		19.6		75.7	
12.5	94		30.6		82.8	
16	98	103.9	41.3	51.9	89.5	96.9
20	102		51.5		95.8	
25	105		60.3		100.6	
31.5	101	106.8	61.6	65.9	98	103.1
40	96		61.4		94	
50	96		65.8		94.7	
63	93.1	98.3	66.9	70.9	92.3	97.2
80	88.2		65.7		87.7	
100	90		70.9		89.7	
125	87.1	94.2	71	78.8	86.9	94
160	90.4		77		90.3	
200	92		81.1		92	
250	96.2	103.1	87.6	96	96.2	103.1
315	101.7		95.1		101.7	
400	103.6		98.8		103.6	
500	104.9	108.1	101.7	104.6	104.9	108.1
630	100.2		98.3		100.2	
800	100.7		99.9		100.7	
1,000	101.1	105	101.1	104.8	101.1	105
1,250	98.3		98.9		98.3	
1,600	96.2		97.2		96.1	
2,000	96.1	100.6	97.3	101.8	95.9	100.4
2,500	95.2		96.5		94.9	
3,150	94.6		95.8		94.1	
4,000	87.6	95.6	88.6	96.8	86.8	95.1
5,000	83.1		83.6		81.8	
6,300	80		79.9		78	
8,000	80.3	84.5	79.2	83.5	77.3	81.6
10,000	78.6		76.1		74.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 113.3 dB OASLA = 109.2 dB(A)

OASLC = 112.1 dB(C) C-A = 2.9 dB

**Table E-14: T9NSS AVERAGE INTERIOR NOISE
WITH J85 ENGINE AT IDLE POWER.
LOCATION: AVERAGE FROM POSITIONS I & E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	109.7		0		0	
4	108	113.8	0	4.7	0	4.7
5	109.4		0		0	
6.3	108.5		0		0	
8	107.6	112.3	0	36.1	0	92.2
10	106.5		36.1		92.2	
12.5	107.2		43.8		96	
16	106.1	112.7	49.4	59.8	97.6	105.1
20	109.8		59.3		103.6	
25	109		64.3		104.6	
31.5	111.3	113.5	71.9	73.5	108.3	110.2
40	101.3		66.7		99.3	
50	99.4		69.2		98.1	
63	100.8	104.5	74.6	79	100	103.6
80	98.8		76.3		98.3	
100	97.6		78.5		97.3	
125	99.2	105	83.1	90.4	99	104.9
160	102.6		89.2		102.5	
200	102.4		91.5		102.4	
250	96.5	106.5	87.9	98.4	96.5	106.5
315	103.6		97		103.6	
400	113.3		108.5		113.3	
500	101.1	113.6	97.9	109	101.1	113.6
630	97.7		95.8		97.7	
800	105		104.2		105	
1,000	100.8	107.5	100.8	107.2	100.8	107.5
1,250	101		101.6		101	
1,600	102.4		103.4		102.3	
2,000	102.9	107.8	104.1	109	102.7	107.6
2,500	103.9		105.2		103.6	
3,150	107.8		109		107.3	
4,000	125.6	126.2	126.6	127.2	124.8	125.4
5,000	117.5		118		116.2	
6,300	108.6		108.5		106.6	
8,000	111.9	113.7	110.8	112.9	108.9	111
10,000	100.7		98.2		96.3	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 127.6 dB OASLA = 127.6 dB(A)

OASLC = 126.2 dB(C) C-A = -1.3 dB

**Table E-15: T9NSS AVERAGE INTERIOR NOISE
WITH J85 ENGINE AT MILITARY POWER.
LOCATION: AVERAGE FROM POSITIONS I & E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	125.4		0		0	
4	123.2	128.6	0	4.7	0	4.7
5	122.6		0		0	
6.3	122.6		0		0	
8	121.5	126.5	0	50.6	0	106.7
10	121		50.6		106.7	
12.5	120.4		57		109.2	
16	120.4	125.8	63.7	72.4	111.9	118
20	122.2		71.7		116	
25	126		81.3		121.6	
31.5	122.9	128.9	83.5	90.2	119.9	125.6
40	123		88.4		121	
50	123.9		93.7		122.6	
63	123.7	128.7	97.5	103.7	122.9	127.9
80	124.4		101.9		123.9	
100	124.3		105.2		124	
125	125.2	130	109.1	114.7	125	129.8
160	126.1		112.7		126	
200	126.7		115.8		126.7	
250	136.4	141.3	127.8	134.1	136.4	141.3
315	139.5		132.9		139.5	
400	135.8		131		135.8	
500	132.9	140.4	129.7	137.4	132.9	140.4
630	137.2		135.3		137.2	
800	137.6		136.8		137.6	
1,000	137.9	142.5	137.9	142.5	137.9	142.5
1,250	137.8		138.4		137.8	
1,600	137.6		138.6		137.5	
2,000	137.2	142.4	138.4	143.5	137	142.2
2,500	138.1		139.4		137.8	
3,150	138.7		139.9		138.2	
4,000	140.6	146.9	141.6	147.7	139.8	145.9
5,000	144.9		145.4		143.6	
6,300	143		142.9		141	
8,000	131.3	143.3	130.2	143.1	128.3	141.2
10,000	123.1		120.6		118.7	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 151.3 dB OASLA = 151.1 dB(A)

OASLC = 150.6 dB(C) C-A = -0.5 dB

**Table E-16: T9NSS AVERAGE INTERIOR NOISE
WITH J85 ENGINE AT AFTERBURNER POWER.
LOCATION: AVERAGE FROM POSITIONS I & E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	123.9		0		0	
4	123.7	128.2	0	4.7	0	4.7
5	122.8		0		0	
6.3	122.4		0		0	
8	122.2	127	0	51.7	0	107.8
10	122.1		51.7		107.8	
12.5	123		59.6		111.8	
16	123.2	128.3	66.5	74.7	114.7	120.4
20	124.4		73.9		118.2	
25	126.9		82.2		122.5	
31.5	125.9	131.1	86.5	93.2	122.9	128.1
40	126.4		91.8		124.4	
50	127.1		96.9		125.8	
63	126.5	131.4	100.3	106	125.7	130.5
80	126.4		103.9		125.9	
100	126.6		107.5		126.3	
125	128.3	132.7	112.2	117.5	128.1	132.5
160	128.8		115.4		128.7	
200	129.3		118.4		129.3	
250	139.1	141.3	130.5	133.4	139.1	141.3
315	136.6		130		136.6	
400	130.3		125.5		130.3	
500	135.6	139.1	132.4	136.4	135.6	139.1
630	135.5		133.6		135.5	
800	133.7		132.9		133.7	
1,000	135	139	135	139	135	139
1,250	134.1		134.7		134.1	
1,600	133.5		134.5		133.4	
2,000	132.6	137.6	133.8	138.8	132.4	137.5
2,500	132.6		133.9		132.3	
3,150	132.9		134.1		132.4	
4,000	134.1	139.7	135.1	140.5	133.3	138.7
5,000	136.9		137.4		135.6	
6,300	139.2		139.1		137.2	
8,000	128.7	139.6	127.6	139.4	125.7	137.5
10,000	120.4		117.9		116	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 147.8 dB OASLA = 146.3 dB(A)

OASLC = 147.2 dB(C) C-A = 0.9 dB

APPENDIX F
Exterior Near-Field and Interior Noise on the
TF30-P7 Engine

(This page left blank)

TABLE F-1
POWER CONDITIONS FOR EXTERIOR NEAR-FIELD AND
INTERIOR NOISE MEASUREMENTS FOR THE TF30 ENGINE

<u>POWER</u>	<u>%RPM</u>
Idle	66.4
80 % (Intermediate)	80.0
Military	97.9
Afterburner	95.1

Table F-2: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT IDLE POWER.
LOCATION: MAIN DOOR

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	81		0		0	
4	79	86.6	0	4.8	0	4.8
5	84		0		0	
6.3	81		0		0	
8	82	86.1	0	11.3	0	66.7
10	81		10.6		66.7	
12.5	79		15.6		67.8	
16	78	83.8	21.3	30.3	69.5	75.9
20	80		29.5		73.8	
25	79		34.3		74.6	
31.5	75	81.5	35.6	42.4	72	78.1
40	75		40.4		73	
50	64		33.8		62.7	
63	67.7	74.2	41.5	50.7	66.9	73.5
80	72.5		50		72	
100	65.2		46.1		64.9	
125	61.3	67.4	45.2	50.4	61.1	67.1
160	59		45.6		58.9	
200	57.1		46.2		57.1	
250	59.2	63.7	50.6	55.7	59.2	63.7
315	59.9		53.3		59.9	
400	61.5		56.7		61.5	
500	58	64	54.8	60.3	58	64
630	56.6		54.7		56.6	
800	56.5		55.7		56.5	
1,000	55.7	61	55.7	60.9	55.7	61
1,250	56.3		56.9		56.3	
1,600	67.2		68.2		67.1	
2,000	81.2	81.6	82.4	82.8	81	81.4
2,500	69.6		70.9		69.3	
3,150	72.6		73.8		72.1	
4,000	76.4	79.6	77.4	80.5	75.6	78.7
5,000	74.6		75.1		73.3	
6,300	74.7		74.6		72.7	
8,000	72.2	77.4	71.1	76.7	69.2	74.8
10,000	69.7		67.2		65.3	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 92 dB OASLA = 85.5 dB(A)

OASLC = 85.9 dB(C) C-A = .4 dB

Table F-3: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT IDLE POWER.
LOCATION: DOOR 2

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	72		0		0	
4	71	83.6	0	4.8	0	4.8
5	83		0		0	
6.3	73		0		0	
8	76	78.8	0	5.8	0	58.7
10	73		2.6		58.7	
12.5	75		11.6		63.8	
16	78	83.4	21.3	31	69.5	76.2
20	81		30.5		74.8	
25	80		35.3		75.6	
31.5	78	83.3	38.6	44.5	75	80
40	77		42.4		75	
50	63		32.8		61.7	
63	63.8	68.7	37.6	43.8	63	67.9
80	64.7		42.2		64.2	
100	59.7		40.6		59.4	
125	59.5	65.1	43.4	49.8	59.3	64.9
160	61.4		48		61.3	
200	60.1		49.2		60.1	
250	58.9	64.4	50.3	56.1	58.9	64.4
315	59.9		53.3		59.9	
400	63.6		58.8		63.6	
500	65.8	69.7	62.6	66.7	65.8	69.7
630	65.2		63.3		65.2	
800	65.4		64.6		65.4	
1,000	71	74.8	71	75.1	71	74.8
1,250	71.6		72.2		71.6	
1,600	71		72		70.9	
2,000	84.4	86.5	85.6	87.7	84.2	86.3
2,500	82		83.3		81.7	
3,150	77.5		78.7		77	
4,000	79.8	82.3	80.8	83.3	79	81.6
5,000	72.8		73.3		71.5	
6,300	66.4		66.3		64.4	
8,000	68.9	73.3	67.8	71.9	65.9	70
10,000	69.6		67.1		65.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 91.6 dB OASLA = 89.4 dB(A)

OASLC = 88.9 dB(C) C-A = -.5 dB

**Table F-4: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT IDLE POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	70		0		0	
4	68	81.5	0	4.8	0	4.8
5	81		0		0	
6.3	74		0		0	
8	74	77.8	0	5.8	0	58.7
10	73		2.6		58.7	
12.5	74		10.6		62.8	
16	80	85.8	23.3	33.9	71.5	78.8
20	84		33.5		77.8	
25	81		36.3		76.6	
31.5	75	82.6	35.6	42.2	72	78.9
40	74		39.4		72	
50	61		30.8		59.7	
63	63.8	67.9	37.6	43.3	63	67.2
80	64.1		41.6		63.6	
100	59.2		40.1		58.9	
125	55.2	61.4	39.1	44.6	55	61.2
160	53.6		40.2		53.5	
200	53.7		42.8		53.7	
250	50.9	58	42.3	49.8	50.9	58
315	54.3		47.7		54.3	
400	57		52.2		57	
500	55.4	60.4	52.2	56.9	55.4	60.4
630	53.8		51.9		53.8	
800	52.2		51.4		52.2	
1,000	56.1	60	56.1	60.2	56.1	60
1,250	56.4		57		56.4	
1,600	61.7		62.7		61.6	
2,000	75.8	77.9	77	79.1	75.6	77.6
2,500	73.4		74.7		73.1	
3,150	68.3		69.5		67.8	
4,000	68.8	72.3	69.8	73.3	68	71.5
5,000	64.1		64.6		62.8	
6,300	58.3		58.2		56.3	
8,000	57.6	62.2	56.5	61.2	54.6	59.3
10,000	56		53.5		51.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 89.4 dB OASLA = 80.2 dB(A)

OASLC = 83.7 dB(C) C-A = 3.5 dB

**Table F-5: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT IDLE POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	79		0		0	
4	77	83.6	0	4.8	0	4.8
5	80		0		0	
6.3	76		0		0	
8	77	82.3	0	8.2	0	62.7
10	77		6.6		62.7	
12.5	77		13.6		65.8	
16	78	84.3	21.3	32	69.5	77.1
20	82		31.5		75.8	
25	79		34.3		74.6	
31.5	75	81.3	35.6	41.8	72	77.8
40	74		39.4		72	
50	65		34.8		63.7	
63	62.2	67.8	36	41.3	61.4	66.8
80	60.7		38.2		60.2	
100	56.9		37.8		56.6	
125	54.5	60.6	38.4	44.8	54.3	60.4
160	55.8		42.4		55.7	
200	55.8		44.9		55.8	
250	55.4	61.2	46.5	53.2	55.4	61.2
315	57.7		51.1		57.7	
400	60		55.2		60	
500	52.6	61	49.4	56.8	52.6	61
630	49.3		47.4		49.3	
800	50.1		49.3		50.1	
1,000	53.1	57.1	53.1	57.2	53.1	57.1
1,250	53.2		53.8		53.2	
1,600	54.7		55.7		54.6	
2,000	66.6	67.7	67.8	68.9	66.4	67.5
2,500	60		61.3		59.7	
3,150	57		58.2		56.5	
4,000	58.2	61.4	59.2	62.4	57.4	60.6
5,000	53.3		53.8		52	
6,300	51.5		51.4		49.5	
8,000	50.1	54.6	49	53.8	47.1	51.9
10,000	46.5		44		42.1	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 89 dB OASLA = 70.4 dB(A)

OASLC = 81.1 dB(C) C-A = 10.7 dB

Table F-6: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT 80% RPM POWER.
LOCATION: MAIN DOOR

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	81		0		0	
4	83	86.3	0	4.8	0	4.8
5	80		0		0	
6.3	89		0		0	
8	93	94.6	0	22.6	0	78.7
10	95		22.6		78.7	
12.5	91		27.6		79.8	
16	90	94.1	33.3	37.4	81.5	85
20	85		34.5		78.8	
25	98		53.3		93.6	
31.5	93	99.3	53.6	57	90	95.3
40	82		47.4		80	
50	78		47.8		76.7	
63	80.2	87.8	54	64.4	79.4	87.2
80	86.4		63.9		85.9	
100	80.6		61.5		80.3	
125	72.5	82.1	56.4	65.1	72.3	81.9
160	74.9		61.5		74.8	
200	69.3		58.4		69.3	
250	62.6	70.9	54	61.4	62.6	70.9
315	63.1		56.5		63.1	
400	60.9		56.1		60.9	
500	60.3	65	57.1	61.7	60.3	65
630	59.4		57.5		59.4	
800	60		59.2		60	
1,000	59.8	65.8	59.8	65.9	59.8	65.8
1,250	62.7		63.3		62.7	
1,600	66.9		67.9		66.8	
2,000	71.3	91.4	72.5	92.7	71.1	91.1
2,500	91.3		92.6		91	
3,150	82.3		83.5		81.8	
4,000	79.9	87.7	80.9	88.5	79.1	86.7
5,000	85		85.5		83.7	
6,300	81.9		81.8		79.9	
8,000	82.5	86	81.4	85.2	79.5	83.3
10,000	78.3		75.8		73.9	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 102.9 dB OASLA = 94.6 dB(A)

OASLC = 98.1 dB(C) C-A = 3.5 dB

**Table F-7: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT 80% RPM POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	74		0		0	
4	74	80	0	4.8	0	4.8
5	77		0		0	
6.3	79		0		0	
8	81	83.6	0	11.3	0	66.7
10	81		10.6		66.7	
12.5	82		18.6		70.8	
16	89	92.9	32.3	40.3	80.5	85.6
20	90		39.5		83.8	
25	91		46.3		86.6	
31.5	83	92.3	43.6	51.8	80	88.5
40	84		49.4		82	
50	79		48.8		77.7	
63	79.3	83.9	53.1	58.7	78.5	83.1
80	79.2		56.7		78.7	
100	72.6		53.5		72.3	
125	68.8	76.2	52.7	60.5	68.6	76
160	72		58.6		71.9	
200	71.5		60.6		71.5	
250	65.9	74.1	57.3	65.2	65.9	74.1
315	68.8		62.2		68.8	
400	70.8		66		70.8	
500	75.3	78	72.1	75	75.3	78
630	72.5		70.6		72.5	
800	72.5		71.7		72.5	
1,000	74.5	80.7	74.5	80.9	74.5	80.7
1,250	78.5		79.1		78.5	
1,600	77		78		76.9	
2,000	79.4	94	80.6	95.3	79.2	93.7
2,500	93.8		95.1		93.5	
3,150	86.9		88.1		86.4	
4,000	78.5	88	79.5	89.1	77.7	87.4
5,000	78.6		79.1		77.3	
6,300	75.6		75.5		73.6	
8,000	77.8	81.9	76.7	80.6	74.8	78.7
10,000	77.7		75.2		73.3	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 99 dB OASLA = 96.6 dB(A)

OASLC = 96.6 dB(C) C-A = .1 dB

**Table F-8: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT 80% RPM POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	72		0		0	
4	74	83.8	0	4.8	0	4.8
5	83		0		0	
6.3	81		0		0	
8	83	85.3	0	12.2	0	67.7
10	82		11.6		67.7	
12.5	85		21.6		73.8	
16	94	103.6	37.3	52.6	85.5	97.1
20	103		52.5		96.8	
25	102		57.3		97.6	
31.5	91	102.6	51.6	60.1	88	98.5
40	90		55.4		88	
50	78		47.8		76.7	
63	81	83.9	54.8	58.4	80.2	83.1
80	77.7		55.2		77.2	
100	71.3		52.2		71	
125	67.6	74.4	51.5	58.4	67.4	74.2
160	69.3		55.9		69.2	
200	66		55.1		66	
250	60.1	68.4	51.5	59.5	60.1	68.4
315	62.9		56.3		62.9	
400	62.7		57.9		62.7	
500	61.5	65.9	58.3	62.3	61.5	65.9
630	58		56.1		58	
800	56		55.2		56	
1,000	57.4	62.8	57.4	63	57.4	62.8
1,250	59.8		60.4		59.8	
1,600	61		62		60.9	
2,000	69.7	81.7	70.9	83	69.5	81.4
2,500	81.4		82.7		81.1	
3,150	74.7		75.9		74.2	
4,000	65.6	75.9	66.6	77	64.8	75.2
5,000	67.5		68		66.2	
6,300	63.5		63.4		61.5	
8,000	64.2	67.8	63.1	66.9	61.2	65
10,000	60.8		58.3		56.4	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 106.2 dB OASLA = 84.2 dB(A)

OASLC = 101 dB(C) C-A = 16.8 dB

**Table F-9: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT 80% RPM POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	84		0		0	
4	81	88	0	4.8	0	4.8
5	84		0		0	
6.3	83		0		0	
8	84	88.5	0	13.1	0	68.7
10	83		12.6		68.7	
12.5	85		21.6		73.8	
16	92	95.9	35.3	43.3	83.5	88.6
20	93		42.5		86.8	
25	98		53.3		93.6	
31.5	91	99	51.6	57	88	95
40	86		51.4		84	
50	81		50.8		79.7	
63	77.9	83.4	51.7	56.5	77.1	82.4
80	75		52.5		74.5	
100	71.4		52.3		71.1	
125	68.7	74.9	52.6	59.1	68.5	74.7
160	70		56.6		69.9	
200	66.6		55.7		66.6	
250	63.9	70.5	55.3	62	63.9	70.5
315	66.1		59.5		66.1	
400	66		61.2		66	
500	61.8	67.8	58.6	63.8	61.8	67.8
630	57.2		55.3		57.2	
800	56.2		55.4		56.2	
1,000	58.9	63.3	58.9	63.5	58.9	63.3
1,250	59.8		60.4		59.8	
1,600	58.1		59.1		58	
2,000	60.4	73.5	61.6	74.7	60.2	73.2
2,500	73.1		74.4		72.8	
3,150	66		67.2		65.5	
4,000	59	67.6	60	68.7	58.2	67
5,000	60.1		60.6		58.8	
6,300	58.8		58.7		56.8	
8,000	58.6	62.7	57.5	61.8	55.6	59.9
10,000	55.8		53.3		51.4	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 101.3 dB OASLA = 76.7 dB(A)

OASLC = 96.2 dB(C) C-A = 19.5 dB

**Table F-10: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT MILITARY POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	88		0		0	
4	93	96.2	0	4.8	0	4.8
5	92		0		0	
6.3	96		0		0	
8	98	100.4	0	26.6	0	82.7
10	97		26.6		82.7	
12.5	93		29.6		81.8	
16	95	97.6	38.3	41.2	86.5	88.7
20	88		37.5		81.8	
25	98		53.3		93.6	
31.5	94	99.8	54.6	58.6	91	96
40	88		53.4		86	
50	87		56.8		85.7	
63	90	96	63.8	72.2	89.2	95.3
80	93.9		71.4		93.4	
100	87.1		68		86.8	
125	81.3	88.8	65.2	71.7	81.1	88.5
160	80.4		67		80.3	
200	78		67.1		78	
250	76.6	81.4	68	72.5	76.6	81.4
315	74.5		67.9		74.5	
400	76.3		71.5		76.3	
500	75.5	80.4	72.3	77.2	75.5	80.4
630	75.1		73.2		75.1	
800	73.6		72.8		73.6	
1,000	72.2	77.4	72.2	77.3	72.2	77.4
1,250	71.9		72.5		71.9	
1,600	73.7		74.7		73.6	
2,000	78.7	83.1	79.9	84.3	78.5	82.9
2,500	80.3		81.6		80	
3,150	79.2		80.4		78.7	
4,000	83.7	88.1	84.7	88.9	82.9	87.1
5,000	85.2		85.7		83.9	
6,300	81.6		81.5		79.6	
8,000	79.5	84.6	78.4	83.9	76.5	82
10,000	77.6		75.1		73.2	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 106.1 dB OASLA = 91.6 dB(A)

OASLC = 100.1 dB(C) C-A = 8.5 dB

**Table F-11: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT MILITARY POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	87		0		0	
4	85	92.1	0	4.8	0	4.8
5	89		0		0	
6.3	87		0		0	
8	92	94.1	0	23.6	0	79.7
10	94		23.6		79.7	
12.5	93		29.6		81.8	
16	96	100	39.3	46.5	87.5	92.2
20	96		45.5		89.8	
25	95		50.3		90.6	
31.5	90	97	50.6	57	87	93.3
40	89		54.4		87	
50	86		55.8		84.7	
63	89.6	93.6	63.4	69	88.8	92.8
80	89.8		67.3		89.3	
100	83.5		64.4		83.2	
125	78	85.1	61.9	67.8	77.8	84.9
160	75.8		62.4		75.7	
200	77.7		66.8		77.7	
250	81.6	86	73	78.3	81.6	86
315	82.9		76.3		82.9	
400	92.8		88		92.8	
500	94.7	98.7	91.5	95.6	94.7	98.7
630	94		92.1		94	
800	89.8		89		89.8	
1,000	89.8	94.5	89.8	94.5	89.8	94.5
1,250	89.6		90.2		89.6	
1,600	82.2		83.2		82.1	
2,000	86.7	90.7	87.9	92	86.5	90.5
2,500	87.4		88.7		87.1	
3,150	86.1		87.3		85.6	
4,000	80.3	87.9	81.3	89	79.5	87.2
5,000	80.1		80.6		78.8	
6,300	71.4		71.3		69.4	
8,000	75.3	79.4	74.2	77.9	72.3	76
10,000	75.9		73.4		71.5	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 105.6 dB OASLA = 99.5 dB(A)

OASLC = 102.6 dB(C) C-A = 3.1 dB

**Table F-12: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT MILITARY POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	79		0		0	
4	83	88.3	0	4.8	0	4.8
5	86		0		0	
6.3	86		0		0	
8	93	93.9	0	25.6	0	81.7
10	96		25.6		81.7	
12.5	96		32.6		84.8	
16	101	106.8	44.3	54.9	92.5	99.9
20	105		54.5		98.8	
25	102		57.3		97.6	
31.5	92	103.1	52.6	62.6	89	99.3
40	95		60.4		93	
50	86		55.8		84.7	
63	91.2	95.5	65	71.4	90.4	94.8
80	92.6		70.1		92.1	
100	83.9		64.8		83.6	
125	79.2	85.8	63.1	68.8	79	85.6
160	77.4		64		77.3	
200	78.2		67.3		78.2	
250	73.5	81.5	64.9	73	73.5	81.5
315	77.2		70.6		77.2	
400	87.6		82.8		87.6	
500	86.8	92	83.6	88.8	86.8	92
630	87.3		85.4		87.3	
800	80.4		79.6		80.4	
1,000	76.4	82.9	76.4	82.6	76.4	82.9
1,250	76		76.6		76	
1,600	73.8		74.8		73.7	
2,000	82.7	86.4	83.9	87.7	82.5	86.2
2,500	83.6		84.9		83.3	
3,150	81.4		82.6		80.9	
4,000	72.9	82.6	73.9	83.7	72.1	81.9
5,000	73.6		74.1		72.3	
6,300	66.6		66.5		64.6	
8,000	67	71.6	65.9	70.5	64	68.6
10,000	66.9		64.4		62.5	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 109.2 dB OASLA = 92.6 dB(A)

OASLC = 103.8 dB(C) C-A = 11.2 dB

**Table F-13: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT MILITARY POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	81		0		0	
4	87	91.5	0	4.8	0	4.8
5	89		0		0	
6.3	90		0		0	
8	93	94.9	0	24.6	0	80.7
10	95		24.6		80.7	
12.5	97		33.6		85.8	
16	96	101.1	39.3	46.7	87.5	92.8
20	96		45.5		89.8	
25	100		55.3		95.6	
31.5	94	101.8	54.6	61.8	91	98.1
40	94		59.4		92	
50	92		61.8		90.7	
63	89.3	95	63.1	68.8	88.5	94
80	88.5		66		88	
100	86.9		67.8		86.6	
125	80.8	88.6	64.7	71.6	80.6	88.4
160	80.7		67.3		80.6	
200	81		70.1		81	
250	78.2	84.2	69.6	75.4	78.2	84.2
315	78.4		71.8		78.4	
400	82.1		77.3		82.1	
500	79.8	85.2	76.6	81.6	79.8	85.2
630	78.5		76.6		78.5	
800	78.2		77.4		78.2	
1,000	80.9	84.3	80.9	84.3	80.9	84.3
1,250	78.9		79.5		78.9	
1,600	77.2		78.2		77.1	
2,000	77.3	82.1	78.5	83.2	77.1	81.9
2,500	77.4		78.7		77.1	
3,150	77.1		78.3		76.6	
4,000	71.4	78.7	72.4	79.8	70.6	78
5,000	69.3		69.8		68	
6,300	66.9		66.8		64.9	
8,000	66.6	71.1	65.5	70.1	63.6	68.2
10,000	65.5		63		61.1	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 106.1 dB OASLA = 89 dB(A)

OASLC = 101.1 dB(C) C-A = 12.1 dB

Table F-14: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT AFTERBURNER POWER.
LOCATION: MAIN DOOR

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	88		0		0	
4	93	98.8	0	4.8	0	4.8
5	97		0		0	
6.3	101		0		0	
8	104	105.8	0	33.6	0	89.7
10	104		33.6		89.7	
12.5	103		39.6		91.8	
16	103	106.3	46.3	49	94.5	97.1
20	95		44.5		88.8	
25	102		57.3		97.6	
31.5	98	103.8	58.6	62.6	95	100
40	92		57.4		90	
50	93		62.8		91.7	
63	93.8	99.3	67.6	74.9	93	98.5
80	96.1		73.6		95.6	
100	90.1		71		89.8	
125	88.3	94	72.2	78.2	88.1	93.8
160	89		75.6		88.9	
200	83		72.1		83	
250	80	86.2	71.4	77.5	80	86.2
315	80.7		74.1		80.7	
400	79.3		74.5		79.3	
500	78.6	83.4	75.4	80.1	78.6	83.4
630	77.9		76		77.9	
800	78.5		77.7		78.5	
1,000	78.5	83.6	78.5	83.6	78.5	83.6
1,250	79.4		80		79.4	
1,600	82.1		83.1		82	
2,000	84.5	89.4	85.7	90.7	84.3	89.2
2,500	86.4		87.7		86.1	
3,150	86.3		87.5		85.8	
4,000	90.6	93.2	91.6	94.1	89.8	92.4
5,000	87.2		87.7		85.9	
6,300	85.6		85.5		83.6	
8,000	83.8	88.5	82.7	87.8	80.8	85.9
10,000	80.3		77.8		75.9	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 111.8 dB OASLA = 96.9 dB(A)

OASLC = 104.7 dB(C) C-A = 7.8 dB

**Table F-15: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT AFTERBURNER POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	83		0		0	
4	87	93.6	0	4.8	0	4.8
5	92		0		0	
6.3	93		0		0	
8	99	100.1	0	30.6	0	86.7
10	101		30.6		86.7	
12.5	103		39.6		91.8	
16	105	108.3	48.3	53.4	96.5	99.9
20	102		51.5		95.8	
25	99		54.3		94.6	
31.5	97	102.5	57.6	64.1	94	99.3
40	97		62.4		95	
50	93		62.8		91.7	
63	94.5	98.9	68.3	74	93.7	98.1
80	94.7		72.2		94.2	
100	88.2		69.1		87.9	
125	86	91	69.9	74.4	85.8	90.8
160	83.7		69.9		83.2	
200	84.8		73.9		84.8	
250	88.2	93.2	79.6	85.6	88.2	93.2
315	90.5		83.9		90.5	
400	95		90.2		95	
500	100.2	103.3	97	100.5	100.2	103.3
630	99		97.1		99	
800	97.1		96.3		97.1	
1,000	97.7	102	97.7	101.9	97.7	102
1,250	96.7		97.3		96.7	
1,600	90.7		91.7		90.6	
2,000	94.6	99.6	95.8	100.8	94.4	99.3
2,500	97		98.3		96.7	
3,150	96.3		97.5		95.8	
4,000	89.1	97.2	90.1	98.4	88.3	96.7
5,000	83.6		84.1		82.3	
6,300	77.5		77.4		75.5	
8,000	80.7	84.9	79.6	83.5	77.7	81.6
10,000	81.3		78.8		76.9	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 112.4 dB OASLA = 106.7 dB(A)

OASLC = 109 dB(C) C-A = 2.3 dB

**Table F-16: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT AFTERBURNER POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	83		0		0	
4	86	92.7	0	4.8	0	4.8
5	91		0		0	
6.3	93		0		0	
8	99	100.1	0	32.6	0	88.7
10	103		32.6		88.7	
12.5	103		39.6		91.8	
16	108	112.6	51.3	60.2	99.5	105.4
20	110		59.5		103.8	
25	106		61.3		101.6	
31.5	98	107	58.6	65.4	95	103
40	96		61.4		94	
50	90		59.8		88.7	
63	93.6	97.6	67.4	73.1	92.8	96.9
80	94		71.5		93.5	
100	89.1		70		88.8	
125	86	92.1	69.9	75.8	85.8	91.8
160	86		72.6		85.9	
200	83.8		72.9		83.8	
250	80	87	71.4	78.3	80	87
315	82		75.4		82	
400	85.9		81.1		85.9	
500	87.8	91.4	84.6	88.3	87.8	91.4
630	86		84.1		86	
800	81.9		81.1		81.9	
1,000	80.9	86	80.9	85.9	80.9	86
1,250	80.8		81.4		80.8	
1,600	79.3		80.3		79.2	
2,000	86.4	90.5	87.6	91.7	86.2	90.3
2,500	87.8		89.1		87.5	
3,150	85.7		86.9		85.2	
4,000	78.8	86.8	79.8	87.9	78	86.2
5,000	74.4		74.9		73.1	
6,300	69.5		69.4		67.5	
8,000	69.4	73.8	68.3	72.8	66.4	70.9
10,000	68		65.5		63.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 114.4 dB OASLA = 95.2 dB(A)

OASLC = 108.2 dB(C) C-A = 13. dB

**Table F-17: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF30 ENGINE AT AFTERBURNER POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	81		0		0	
4	85	93.9	0	4.8	0	4.8
5	93		0		0	
6.3	97		0		0	
8	99	101.2	0	30.6	0	86.7
10	101		30.6		86.7	
12.5	104		40.6		92.8	
16	103	107.8	46.3	52.9	94.5	99.3
20	102		51.5		95.8	
25	104		59.3		99.6	
31.5	101	106.4	61.6	66.5	98	102.9
40	98		63.4		96	
50	98		67.8		96.7	
63	93.6	100.1	67.4	73.2	92.8	99.1
80	92.2		69.7		91.7	
100	90.7		71.6		90.4	
125	87.1	93.6	71	77.4	86.9	93.4
160	87.9		74.5		87.8	
200	86.5		75.6		86.5	
250	85	90.7	76.4	82.3	85	90.7
315	86.1		79.5		86.1	
400	90.4		85.6		90.4	
500	88.2	93.4	85	89.8	88.2	93.4
630	86.4		84.5		86.4	
800	86.5		85.7		86.5	
1,000	88.8	92.9	88.8	92.9	88.8	92.9
1,250	88.6		89.2		88.6	
1,600	87		88		86.9	
2,000	88	93.1	89.2	94.3	87.8	92.8
2,500	89.5		90.8		89.2	
3,150	89.6		90.8		89.1	
4,000	83.4	90.9	84.4	92	82.6	90.3
5,000	79.9		80.4		78.6	
6,300	76.7		76.6		74.7	
8,000	77.1	81.1	76	80.1	74.1	78.2
10,000	74.8		72.3		70.4	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 111.9 dB OASLA = 98.8 dB(A)

OASLC = 106.7 dB(C) C-A = 7.9 dB

Table F-18: T9NSS AVERAGE INTERIOR NOISE
WITH TF30 ENGINE AT IDLE POWER.
LOCATION: AVERAGE FROM POSITIONS I, M , & E

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	85		0		0	
4	84.3	88.9	0	4.7	0	4.7
5	83.1		0		0	
6.3	87.3		0		0	
8	86.7	91.3	0	15.4	0	71.3
10	85.6		15.2		71.3	
12.5	83.5		20.1		72.3	
16	84	90.2	27.3	37.6	75.5	82.8
20	87.7		37.2		81.5	
25	83.8		39.1		79.4	
31.5	76.1	85.1	36.7	44.7	73.1	81.4
40	76.9		42.3		74.9	
50	79.8		49.6		78.5	
63	83.2	88.4	57	64.4	82.4	87.7
80	85.9		63.4		85.4	
100	87.6		68.5		87.3	
125	93.4	96.5	77.3	81.5	93.2	96.3
160	92.5		79.1		92.4	
200	87.8		76.9		87.8	
250	87.7	93.7	79.1	85.9	87.7	93.7
315	90.8		84.2		90.8	
400	90.8		86		90.8	
500	87.5	93.8	84.3	90.3	87.5	93.8
630	88.2		86.3		88.2	
800	88.5		87.7		88.5	
1,000	90.8	96.4	90.8	96.6	90.8	96.4
1,250	94		94.6		94	
1,600	100.5		101.5		100.4	
2,000	114.4	114.9	115.6	116.1	114.2	114.7
2,500	104.1		105.4		103.8	
3,150	101.2		102.4		100.7	
4,000	105.7	108	106.7	108.9	104.9	107.1
5,000	101.2		101.7		99.9	
6,300	100.3		100.2		98.3	
8,000	96.5	102.3	95.4	101.8	93.5	99.9
10,000	93.3		90.8		88.9	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 116.1 dB OASLA = 117.1 dB(A)

OASLC = 115.7 dB(C) C-A = -1.4 dB

**Table F-19: T9NSS AVERAGE INTERIOR NOISE
WITH TF30 ENGINE AT 80% POWER.
LOCATION: AVERAGE FROM POSITIONS I, M, & E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	113		0		0	
4	113.2	117.5	0	4.7	0	4.7
5	112.1		0		0	
6.3	111.7		0		0	
8	111.3	116	0	40.5	0	96.6
10	110.9		40.5		96.6	
12.5	110.3		46.9		99.1	
16	108.3	114.2	51.6	60	99.8	105.9
20	109.6		59.1		103.4	
25	108.6		63.9		104.2	
31.5	105.3	111.3	65.9	72.2	102.3	107.9
40	104.8		70.2		102.8	
50	104		73.8		102.7	
63	103.8	108.9	77.6	83.8	103	108
80	104.6		82.1		104.1	
100	104.4		85.3		104.1	
125	106.4	110.8	90.3	95.6	106.2	110.6
160	107		93.6		106.9	
200	102		91.1		102	
250	96.4	104	87.8	94.8	96.4	104
315	97.2		90.6		97.2	
400	96.4		91.6		96.4	
500	94.8	100.1	91.6	96.7	94.8	100.1
630	94.6		92.7		94.6	
800	93.9		93.1		93.9	
1,000	95.1	101.4	95.1	101.6	95.1	101.4
1,250	99.1		99.7		99.1	
1,600	101.3		102.3		101.2	
2,000	101.1	114.6	102.3	115.8	100.9	114.3
2,500	114.2		115.5		113.9	
3,150	107.5		108.7		107	
4,000	104.1	111.9	105.1	112.7	103.3	111
5,000	108.7		109.2		107.4	
6,300	108.3		108.2		106.3	
8,000	107.1	111.6	106	110.8	104.1	108.9
10,000	104.6		102.1		100.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 123.6 dB OASLA = 118.6 dB(A)

OASLC = 119.1 dB(C) C-A = 0.6 dB

Table F-20: T9NSS AVERAGE INTERIOR NOISE
WITH TF30 ENGINE AT MILITARY POWER.
LOCATION: AVERAGE FROM POSITIONS I, M, & E

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	112.5		0		0	
4	111.7	116.3	0	4.7	0	4.7
5	110.2		0		0	
6.3	110.5		0		0	
8	109.3	114.3	0	38.3	0	94.4
10	108.7		38.3		94.4	
12.5	108.3		44.9		97.1	
16	106.9	111.9	50.2	57	98.4	103.4
20	106.2		55.7		100	
25	104.8		60.1		100.4	
31.5	103.9	109.7	64.5	72.3	100.9	106.7
40	105.9		71.3		103.9	
50	104.4		74.2		103.1	
63	106.1	111	79.9	86.5	105.3	110.2
80	107.7		85.2		107.2	
100	109.1		90		108.8	
125	107.8	112.4	91.7	96	107.6	112.1
160	105.2		91.8		105.1	
200	104.8		93.9		104.8	
250	106	110.2	97.4	101.9	106	110.2
315	105.5		98.9		105.5	
400	111.4		106.6		111.4	
500	113.1	117.6	109.9	114.7	113.1	117.6
630	113.8		111.9		113.8	
800	111		110.2		111	
1,000	110	115.3	110	115.3	110	115.3
1,250	110.8		111.4		110.8	
1,600	110.6		111.6		110.5	
2,000	110.6	115.3	111.8	116.5	110.4	115.1
2,500	110.5		111.8		110.2	
3,150	108.9		110.1		108.4	
4,000	108.6	113.6	109.6	114.5	107.8	112.7
5,000	109		109.5		107.7	
6,300	105.6		105.5		103.6	
8,000	101.8	108.1	100.7	107.3	98.8	105.4
10,000	101.3		98.8		96.9	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 124.7 dB OASLA = 121.6 dB(A)

OASLC = 122.9 dB(C) C-A = 1.3 dB

**Table F-21: T9NSS AVERAGE INTERIOR NOISE
WITH TF30 ENGINE AT AFTERBURNER POWER.
LOCATION: AVERAGE FROM POSITIONS I, M, & E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	108.7		0		0	
4	107.4	112.5	0	4.7	0	4.7
5	107		0		0	
6.3	110.2		0		0	
8	107.1	113.3	0	37.3	0	93.4
10	107.7		37.3		93.4	
12.5	105.7		42.3		94.5	
16	107.5	115.7	50.8	64.2	99	108.9
20	114.5		64		108.3	
25	114.3		69.6		109.9	
31.5	111.5	118.3	72.1	80.8	108.5	115.3
40	114.4		79.8		112.4	
50	112.7		82.5		111.4	
63	109.9	117.1	83.7	92.3	109.1	116.2
80	113.6		91.1		113.1	
100	116.1		97		115.8	
125	123.1	126	107	111	122.9	125.8
160	121.9		108.5		121.8	
200	121.7		110.8		121.7	
250	121.6	127.4	113	119.5	121.6	127.4
315	124.3		117.7		124.3	
400	125.8		121		125.8	
500	126.6	131.6	123.4	128.7	126.6	131.6
630	127.9		126		127.9	
800	128.1		127.3		128.1	
1,000	128.3	133.2	128.3	133.3	128.3	133.2
1,250	129.1		129.7		129.1	
1,600	128.8		129.8		128.7	
2,000	128.6	133.4	129.8	134.6	128.4	133.2
2,500	128.6		129.9		128.3	
3,150	127.9		129.1		127.4	
4,000	126.9	131.6	127.9	132.6	126.1	130.9
5,000	125.7		126.2		124.4	
6,300	124.2		124.1		122.2	
8,000	122.4	127.5	121.3	126.6	119.4	124.7
10,000	121		118.5		116.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 139.5 dB OASLA = 139.1 dB(A)

OASLC = 139.2 dB(C) C-A = .1 dB

(This page left blank)

APPENDIX G
Exterior Near-Field and Interior Noise on the
TF33-P3 Engine

(This page left blank)

TABLE G-1
POWER CONDITIONS FOR EXTERIOR NEAR-FIELD AND
INTERIOR NOISE MEASUREMENTS FOR THE TF33 ENGINE

<u>POWER</u>	<u>%RPM</u>
Idle	57.3
80 % (Intermediate)	80.3
Military	99.0

**Table G-2: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF33 ENGINE AT IDLE POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	83		0		0	
4	82	88.8	0	4.8	0	4.8
5	86		0		0	
6.3	86		0		0	
8	87	90.4	0	14	0	69.7
10	84		13.6		69.7	
12.5	83		19.6		71.8	
16	80	86.6	23.3	32.3	71.5	78.3
20	82		31.5		75.8	
25	81		36.3		76.6	
31.5	80	84.4	40.6	45.2	77	81.1
40	77		42.4		75	
50	75		44.8		73.7	
63	76.1	79.5	49.9	53.4	75.3	78.6
80	72.1		49.6		71.6	
100	73.6		54.5		73.3	
125	69.4	75.3	53.3	57.7	69.2	75
160	63.4		50		63.3	
200	64.9		54		64.9	
250	61.9	67.3	53.3	58	61.9	67.3
315	58.8		52.2		58.8	
400	58.2		53.4		58.2	
500	59.1	63.3	55.9	60.1	59.1	63.3
630	58.2		56.3		58.2	
800	58.4		57.6		58.4	
1,000	68.2	69.6	68.2	69.7	68.2	69.6
1,250	62.6		63.2		62.6	
1,600	61.7		62.7		61.6	
2,000	69.4	71.9	70.6	73.1	69.2	71.6
2,500	67.1		68.4		66.8	
3,150	72.6		73.8		72.1	
4,000	70.4	75.7	71.4	76.7	69.6	75
5,000	69.2		69.7		67.9	
6,300	67.7		67.6		65.7	
8,000	65.5	70.5	64.4	69.8	62.5	67.9
10,000	62.6		60.1		58.2	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 94.5 dB OASLA = 79.5 dB(A)

OASLC = 85.8 dB(C) C-A = 6.3 dB

**Table G-3: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF33 ENGINE AT IDLE POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	82		0		0	
4	81	86.5	0	4.8	0	4.8
5	82		0		0	
6.3	80		0		0	
8	78	85.1	0	8.2	0	62.7
10	77		6.6		62.7	
12.5	77		13.6		65.8	
16	79	83.2	22.3	29.5	70.5	75.3
20	79		28.5		72.8	
25	78		33.3		73.6	
31.5	80	83.1	40.6	44.4	77	79.9
40	76		41.4		74	
50	77		46.8		75.7	
63	88.3	89.2	62.1	63.6	87.5	88.5
80	80.6		58.1		80.1	
100	84		64.9		83.7	
125	76.1	84.8	60	66.7	75.9	84.5
160	70.8		57.4		70.7	
200	78.7		67.8		78.7	
250	74.8	80.8	66.2	71.4	74.8	80.8
315	72.2		65.6		72.2	
400	74.4		69.6		74.4	
500	78.9	82.4	75.7	79.6	78.9	82.4
630	78.4		76.5		78.4	
800	76.9		76.1		76.9	
1,000	91	91.7	91	91.7	91	91.7
1,250	81.9		82.5		81.9	
1,600	73.7		74.7		73.6	
2,000	82.5	84.6	83.7	85.8	82.3	84.4
2,500	79.5		80.8		79.2	
3,150	82.6		83.8		82.1	
4,000	72.7	83.2	73.7	84.3	71.9	82.6
5,000	68.7		69.2		67.4	
6,300	64.1		64		62.1	
8,000	62.5	67.6	61.4	66.7	59.5	64.8
10,000	61.3		58.8		56.9	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 96.5 dB OASLA = 93.5 dB(A)

OASLC = 95.2 dB(C) C-A = 1.7 dB

**Table G-4: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF33 ENGINE AT IDLE POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	72		0		0	
4	71	79	0	4.8	0	4.8
5	77		0		0	
6.3	77		0		0	
8	79	81.6	0	6.9	0	60.7
10	75		4.6		60.7	
12.5	75		11.6		63.8	
16	81	88.2	24.3	36.8	72.5	81.5
20	87		36.5		80.8	
25	82		37.3		77.6	
31.5	85	87.2	45.6	47.7	82	83.9
40	77		42.4		75	
50	74		43.8		72.7	
63	76.8	80.7	50.6	55.8	76	79.9
80	76.4		53.9		75.9	
100	81.7		62.6		81.4	
125	76.7	83.1	60.6	65.4	76.5	82.9
160	70.7		57.3		70.6	
200	77.8		66.9		77.8	
250	70.2	78.8	61.6	68.7	70.2	78.8
315	66.7		60.1		66.7	
400	69.2		64.4		69.2	
500	72.6	75.4	69.4	72.3	72.6	75.4
630	69.3		67.4		69.3	
800	66.6		65.8		66.6	
1,000	78.1	79.1	78.1	79.2	78.1	79.1
1,250	71.1		71.7		71.1	
1,600	64.5		65.5		64.4	
2,000	75.1	76.8	76.3	78.1	74.9	76.6
2,500	71.2		72.5		70.9	
3,150	72.9		74.1		72.4	
4,000	61.7	73.4	62.7	74.5	60.9	72.8
5,000	58.8		59.3		57.5	
6,300	56.1		56		54.1	
8,000	54.2	59.1	53.1	58.3	51.2	56.4
10,000	51.5		49		47.1	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 93 dB OASLA = 83.1 dB(A)

OASLC = 89.7 dB(C) C-A = 6.6 dB

**Table G-5: T9N55 EXTERIOR NEAR FIELD NOISE
WITH TF33 ENGINE AT IDLE POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	76		0		0	
4	76	82.5	0	4.8	0	4.8
5	80		0		0	
6.3	75		0		0	
8	74	79.8	0	6.9	0	60.7
10	75		4.6		60.7	
12.5	76		12.6		64.8	
16	79	83.4	22.3	30.3	70.5	75.8
20	80		29.5		73.8	
25	80		35.3		75.6	
31.5	80	84.2	40.6	45.7	77	81
40	78		45.4		76	
50	74		45.8		72.7	
63	85.6	86.2	59.4	60.2	84.8	85.4
80	74.5		52		74	
100	78.5		59.4		78.2	
125	78.6	81.8	62.5	64.7	78.4	81.5
160	68.1		54.7		68	
200	71.2		60.3		71.2	
250	64.8	72.8	56.2	63.2	64.8	72.8
315	64.5		57.9		64.5	
400	64.4		59.6		64.4	
500	62.3	68.2	59.1	64.9	62.3	68.2
630	63.2		61.3		63.2	
800	65.9		65.1		65.9	
1,000	75.8	78	75.8	78.2	75.8	78
1,250	73.4		74		73.4	
1,600	65		66		64.9	
2,000	66.1	70.2	67.3	71.4	65.9	70
2,500	65.1		66.4		64.8	
3,150	68.8		70		68.3	
4,000	63	70.2	64	71.3	62.2	69.5
5,000	59		59.5		57.7	
6,300	57.1		57		55.1	
8,000	56.4	60.9	55.3	60	53.4	58.1
10,000	54.5		52		50.1	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 91.5 dB OASLA = 80.2 dB(A)

OASLC = 88.8 dB(C) C-A = 8.6 dB

**Table G-6: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF33 ENGINE AT INTERMEDIATE POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	85		0		0	
4	87	90.8	0	4.8	0	4.8
5	86		0		0	
6.3	95		0		0	
8	96	98.7	0	25.6	0	81.7
10	96		25.6		81.7	
12.5	94		30.6		82.8	
16	91	96.1	34.3	38.2	82.5	86.5
20	85		34.5		78.8	
25	96		51.3		91.6	
31.5	93	97.9	53.6	56.2	90	94.1
40	82		47.4		80	
50	84		53.8		82.7	
63	82.4	87.4	56.2	61.3	81.6	86.4
80	80.9		58.4		80.4	
100	79.5		60.4		79.2	
125	75.2	81.5	59.1	64.4	75	81.2
160	72.7		59.3		72.6	
200	72.6		61.7		72.6	
250	69.6	75.4	61	66.4	69.6	75.4
315	68.8		62.2		68.8	
400	69.3		64.5		69.3	
500	67.2	72.4	64	68.9	67.2	72.4
630	65.7		63.8		65.7	
800	66.2		65.4		66.2	
1,000	68.5	73	68.5	73.2	68.5	73
1,250	69.5		70.1		69.5	
1,600	75.8		76.8		75.7	
2,000	91.4	92	92.6	93.2	91.2	91.8
2,500	82.1		83.4		81.8	
3,150	81.1		82.3		80.6	
4,000	89.4	91.2	90.4	92.1	88.6	90.3
5,000	85		85.5		83.7	
6,300	87.9		87.8		85.9	
8,000	85.6	90.8	84.5	90.1	82.6	88.2
10,000	83.6		81.1		79.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 104.4 dB OASLA = 96.8 dB(A)

OASLC = 98.5 dB(C) C-A = 1.7 dB

**Table G-7: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF33 ENGINE AT INTERMEDIATE POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	76		0		0	
4	77	85.3	0	4.8	0	4.8
5	84		0		0	
6.3	84		0		0	
8	84	87.3	0	13.1	0	68.7
10	83		12.6		68.7	
12.5	84		20.6		72.8	
16	91	94.9	34.3	42.3	82.5	87.6
20	92		41.5		85.8	
25	92		47.3		87.6	
31.5	85	93.2	45.6	52	82	89.3
40	83		48.4		81	
50	84		53.8		82.7	
63	87.9	90	61.7	63.8	87.1	89.1
80	80.9		58.4		80.4	
100	83.6		64.5		83.3	
125	76.7	84.9	60.6	67.4	76.5	84.7
160	75.4		62		75.3	
200	82.4		71.5		82.4	
250	78.8	85.8	70.2	77.3	78.8	85.8
315	81.3		74.7		81.3	
400	86.9		82.1		86.9	
500	88.9	92.7	85.7	89.6	88.9	92.7
630	87.6		85.7		87.6	
800	86.4		85.6		86.4	
1,000	88.9	93	88.9	93.1	88.9	93
1,250	89		89.6		89	
1,600	87.8		88.8		87.7	
2,000	104.7	105.2	105.9	106.4	104.5	105
2,500	95.1		96.4		94.8	
3,150	89.3		90.5		88.8	
4,000	89.2	92.6	90.2	93.7	88.4	91.9
5,000	81.9		82.4		80.6	
6,300	80.2		80.1		78.2	
8,000	81.2	85.7	80.1	84.5	76.2	82.6
10,000	81.2		78.7		76.8	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 106.8 dB OASLA = 107 dB(A)

OASLC = 106.1 dB(C) C-A = -.9 dB

**Table G-8: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF33 ENGINE AT INTERMEDIATE POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	75		0		0	
4	78	86.1	0	4.8	0	4.8
5	85		0		0	
6.3	86		0		0	
8	87	89.7	0	14	0	69.7
10	84		13.6		69.7	
12.5	87		23.6		75.8	
16	96	104.7	39.3	53.7	87.5	98.2
20	104		53.5		97.8	
25	101		56.3		96.6	
31.5	93	101.9	53.6	60	90	97.9
40	90		55.4		88	
50	83		52.8		81.7	
63	86.8	89.2	60.6	63.4	86	88.3
80	81.8		59.3		81.3	
100	81.9		62.8		81.6	
125	76.3	83.5	60.2	66.1	76.1	83.2
160	74		60.6		73.9	
200	77.8		66.9		77.8	
250	74.3	81	65.7	72.3	74.3	81
315	75.8		69.2		75.8	
400	81.8		77		81.8	
500	80.9	85.3	77.7	81.7	80.9	85.3
630	77.9		76		77.9	
800	73.6		72.8		73.6	
1,000	73.9	78.5	73.9	78.5	73.9	78.5
1,250	73.7		74.3		73.7	
1,600	75.3		76.3		75.2	
2,000	94.4	94.9	95.6	96.1	94.2	94.7
2,500	85		86.3		84.7	
3,150	78.8		80		78.3	
4,000	75.9	81.1	76.9	82.2	75.1	80.4
5,000	71.4		71.9		70.1	
6,300	70.8		70.7		68.8	
8,000	70.3	74.7	69.2	73.7	67.3	71.8
10,000	68.1		65.6		63.7	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 107.1 dB OASLA = 96.6 dB(A)

OASLC = 102.4 dB(C) C-A = 5.8 dB

**Table G-9: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF33 ENGINE AT INTERMEDIATE POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	76		0		0	
4	79	83.4	0	4.8	0	4.8
5	80		0		0	
6.3	81		0		0	
8	82	85.1	0	14	0	69.7
10	84		13.6		69.7	
12.5	88		24.6		76.8	
16	92	97.3	35.3	45	83.5	90.1
20	95		44.5		88.8	
25	97		52.3		92.6	
31.5	91	98.2	51.6	56.6	88	94.3
40	86		51.4		84	
50	80		49.8		78.7	
63	86.2	87.5	60	61.3	85.4	86.7
80	76.7		54.2		76.2	
100	79.2		60.1		78.9	
125	78.1	82.2	62	65.3	77.9	81.9
160	72.4		59		72.3	
200	73.2		62.3		73.2	
250	71.5	77.3	62.9	68.9	71.5	77.3
315	72.8		66.2		72.8	
400	76.2		71.4		76.2	
500	73.8	78.8	70.6	75	73.8	78.8
630	69.8		67.9		69.8	
800	73		72.2		73	
1,000	75.6	79.9	75.6	80	75.6	79.9
1,250	76.1		76.7		76.1	
1,600	73.5		74.5		73.4	
2,000	86.8	87.4	88	88.6	86.6	87.2
2,500	76.7		78		76.4	
3,150	75		76.2		74.5	
4,000	76.9	79.5	77.9	80.6	76.1	78.8
5,000	69.6		70.1		68.3	
6,300	71.6		71.5		69.6	
8,000	71	75.4	69.9	74.5	68	72.6
10,000	68.8		66.3		64.4	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 101.6 dB OASLA = 90 dB(A)

OASLC = 97.2 dB(C) C-A = 7.2 dB

Table G-10: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF33 ENGINE AT MILITARY POWER.
LOCATION: MAIN DOOR

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	91		0		0	
4	96	98.9	0	4.8	0	4.8
5	94		0		0	
6.3	99		0		0	
8	101	103.4	0	29.6	0	85.7
10	100		29.6		85.7	
12.5	98		34.6		86.8	
16	99	102.1	42.3	45.8	90.5	93.2
20	93		42.5		86.8	
25	102		57.3		97.6	
31.5	100	104.4	60.6	63.8	97	100.8
40	93		58.4		91	
50	95		64.8		93.7	
63	94.6	100.5	68.4	76	93.8	99.7
80	97.2		74.7		96.7	
100	89.8		70.7		89.5	
125	84.6	91.9	68.5	75.1	84.4	91.6
160	84.6		71.2		84.5	
200	83		72.1		83	
250	79.5	85.9	70.9	77	79.5	85.9
315	79.9		73.3		79.9	
400	80.3		75.5		80.3	
500	79.4	84.1	76.2	80.8	79.4	84.1
630	78.1		76.2		78.1	
800	77.8		77		77.8	
1,000	77.5	82.4	77.5	82.4	77.5	82.4
1,250	77.6		78.2		77.6	
1,600	80.7		81.7		80.6	
2,000	83.2	88.4	84.4	89.7	83	88.2
2,500	85.7		87		85.4	
3,150	92		93.2		91.5	
4,000	89.2	95	90.2	96	88.4	94.2
5,000	88.7		89.2		87.4	
6,300	91.6		91.5		89.6	
8,000	89.4	94.7	88.3	93.9	86.4	92
10,000	88.1		85.6		83.7	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 110.1 dB OASLA = 98.9 dB(A)

OASLC = 104.9 dB(C) C-A = 6. dB

**Table G-11: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF33 ENGINE AT MILITARY POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	83		0		0	
4	85	91.2	0	4.8	0	4.8
5	89		0		0	
6.3	89		0		0	
8	94	95.4	0	24.6	0	80.7
10	95		24.6		80.7	
12.5	95		31.6		83.8	
16	98	102.4	41.3	49.3	89.5	94.8
20	99		48.5		92.8	
25	100		55.3		95.6	
31.5	94	101.8	54.6	61.8	91	98.1
40	94		59.4		92	
50	94		63.8		92.7	
63	95.1	98.7	68.9	72.9	94.3	97.8
80	92.1		69.6		91.6	
100	88.8		69.7		88.5	
125	81.3	90.1	65.2	72.7	81.1	89.9
160	81.3		67.9		81.2	
200	85.1		74.2		85.1	
250	84.8	90.9	76.2	83	84.8	90.9
315	87.8		81.2		87.8	
400	93.6		88.8		93.6	
500	96.4	100	93.2	97	96.4	100
630	95.3		93.4		95.3	
800	94.5		93.7		94.5	
1,000	94	98.9	94	98.8	94	98.9
1,250	93.7		94.3		93.7	
1,600	88.6		89.6		88.5	
2,000	92	96.9	93.2	98.2	91.8	96.7
2,500	94.2		95.5		93.9	
3,150	96.3		97.5		95.8	
4,000	87.8	97	88.8	98.2	87	96.5
5,000	82.9		83.4		81.6	
6,300	80.5		80.4		78.5	
8,000	83.6	88.1	82.5	86.6	80.6	84.7
10,000	84.9		82.4		80.5	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 108.9 dB OASLA = 104.2 dB(A)

OASLC = 106.5 dB(C) C-A = 2.3 dB

**Table G-12: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF33 ENGINE AT MILITARY POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	79		0		0	
4	85	89.5	0	4.8	0	4.8
5	87		0		0	
6.3	91		0		0	
8	95	96.5	0	25.6	0	81.7
10	96		25.6		81.7	
12.5	99		35.6		87.8	
16	105	113	48.3	61.7	96.5	106.3
20	112		61.5		105.8	
25	110		65.3		105.6	
31.5	99	110.9	59.6	69.9	96	107
40	102		67.4		100	
50	93		62.8		91.7	
63	96.1	99.2	69.9	73.9	95.3	98.4
80	93.6		71.1		93.1	
100	85.5		66.4		85.2	
125	80.8	87.4	64.7	70.4	80.6	87.2
160	79		65.6		78.9	
200	81.4		70.5		81.4	
250	78.5	86.6	69.9	78.8	78.5	86.6
315	84		77.4		84	
400	87		82.2		87	
500	88	91.9	84.8	88.7	88	91.9
630	86.2		84.3		86.2	
800	81.7		80.9		81.7	
1,000	80.5	85.3	80.5	85.1	80.5	85.3
1,250	78.9		79.5		78.9	
1,600	76		77		75.9	
2,000	84.1	88.4	85.3	89.7	83.9	88.2
2,500	86		87.3		85.7	
3,150	85.9		87.1		85.4	
4,000	76.2	86.5	77.2	87.7	75.4	86
5,000	72.8		73.3		71.5	
6,300	72.7		72.6		70.7	
8,000	72.4	77	71.3	76	69.4	74.1
10,000	71.6		69.1		67.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 115.4 dB OASLA = 94.4 dB(A)

OASLC = 110.2 dB(C) C-A = 15.8 dB

**Table G-13: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF33 ENGINE AT MILITARY POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	82		0		0	
4	87	92.2	0	4.8	0	4.8
5	90		0		0	
6.3	91		0		0	
8	92	94.8	0	24.6	0	80.7
10	95		24.6		80.7	
12.5	97		33.6		85.8	
16	98	103.8	41.3	51.1	89.5	96.3
20	101		50.5		94.8	
25	104		59.3		99.6	
31.5	100	106.2	60.6	66.2	97	102.6
40	98		63.4		96	
50	95		64.8		93.7	
63	93.9	98.3	67.7	72	93.1	97.4
80	90.8		68.3		90.3	
100	88.6		69.5		88.3	
125	82.4	90.4	66.3	73.6	82.2	90.2
160	83.2		69.8		83.1	
200	82.4		71.5		82.4	
250	81.1	86.7	72.5	78.3	81.1	86.7
315	82.2		75.6		82.2	
400	85.2		80.4		85.2	
500	83.8	88.6	80.6	85.1	83.8	88.6
630	81.9		80		81.9	
800	84.7		83.9		84.7	
1,000	86.3	89.9	86.3	89.9	86.3	89.9
1,250	84.2		84.8		84.2	
1,600	83		84		82.9	
2,000	82	87.5	83.2	88.7	81.8	87.3
2,500	83.2		84.5		82.9	
3,150	87.9		89.1		87.4	
4,000	81.6	89.1	82.6	90.2	80.8	88.5
5,000	76.3		76.8		75	
6,300	78.2		78.1		76.2	
8,000	79.3	83.3	78.2	82.2	76.3	80.3
10,000	78		75.5		73.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 109.3 dB OASLA = 96.3 dB(A)

OASLC = 105.1 dB(C) C-A = 9.8 dB

Table G-14: T9NSS AVERAGE INTERIOR NOISE
WITH TF33 ENGINE AT IDLE POWER.
LOCATION: AVERAGE FROM POSITIONS I, M, & E

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	95		0		0	
4	93.2	97.8	0	4.7	0	4.7
5	89.5		0		0	
6.3	92.5		0		0	
8	91.4	95.8	0	17.9	0	73.9
10	88.2		17.8		73.9	
12.5	86.3		22.9		75.1	
16	86.1	92.7	29.4	40.1	77.6	85.3
20	90.2		39.7		84	
25	86.6		41.9		82.2	
31.5	88.2	92.5	48.8	55.2	85.2	89.7
40	88.4		53.8		86.4	
50	95		64.8		93.7	
63	99.5	101.2	73.3	75	98.7	100.4
80	91.5		69		91	
100	92.2		73.1		91.9	
125	92.1	97.5	76	82.3	91.9	97.3
160	93.8		80.4		93.7	
200	95.9		85		95.9	
250	88.9	99	80.3	90.6	88.9	99
315	95.3		88.7		95.3	
400	92.7		87.9		92.7	
500	94.9	99	91.7	96.1	94.9	99
630	95		93.1		95	
800	94		93.2		94	
1,000	111.2	111.7	111.2	111.7	111.2	111.7
1,250	101.6		102.2		101.6	
1,600	98.2		99.2		98.1	
2,000	103.6	105.8	104.8	107	103.4	105.6
2,500	99.6		100.9		99.3	
3,150	103.8		105		103.3	
4,000	100.7	106.4	101.7	107.5	99.9	105.7
5,000	99.5		100		98.2	
6,300	98.5		98.4		96.5	
8,000	96.6	101.7	95.5	100.8	93.6	98.9
10,000	95		92.5		90.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 114.7 dB OASLA = 114.4 dB(A)

OASLC = 114.2 dB(C) C-A = -.2 dB

**Table G-15: T9NSS AVERAGE INTERIOR NOISE
WITH TF33 ENGINE AT INTERMEDIATE POWER.
LOCATION: AVERAGE FROM POSITIONS I, M, & E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	102.4		0		0	
4	101.2	105.4	0	4.7	0	4.7
5	96.5		0		0	
6.3	102		0		0	
8	101.6	106.5	0	31.2	0	87.3
10	101.6		31.2		87.3	
12.5	101.1		37.7		89.9	
16	102.3	110.7	45.6	59.2	93.8	103.9
20	109.5		59		103.3	
25	109		64.3		104.6	
31.5	104	111	64.6	71.4	101	107.5
40	103.8		69.2		101.8	
50	107.2		77		105.9	
63	117	117.5	90.8	91.3	116.2	116.7
80	103.1		80.6		102.6	
100	104.7		85.6		104.4	
125	105.2	112.7	89.1	98.4	105	112.6
160	111		97.6		110.9	
200	114.5		103.6		114.5	
250	104.9	117.2	96.3	108.8	104.9	117.2
315	113.5		106.9		113.5	
400	108.1		103.3		108.1	
500	108.2	112.7	105	109.5	108.2	112.7
630	107.5		105.6		107.5	
800	103.7		102.9		103.7	
1,000	107.7	112	107.7	112.2	107.7	112
1,250	108.9		109.5		108.9	
1,600	111.1		112.1		111	
2,000	125.1	125.6	126.3	126.8	124.9	125.4
2,500	115.3		116.6		115	
3,150	111.9		113.1		111.4	
4,000	117.7	120	118.7	120.9	116.9	119.1
5,000	114.1		114.6		112.8	
6,300	116.6		116.5		114.6	
8,000	115.3	120.2	114.2	119.3	112.3	117.4
10,000	114.4		111.9		110	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 128.9 dB OASLA = 128.6 dB(A)

OASLC = 128.1 dB(C) C-A = - .5 dB

**Table G-16: T9NSS AVERAGE INTERIOR NOISE
WITH TF33 ENGINE AT MILITARY POWER.
LOCATION: AVERAGE FROM POSITIONS I, M, & E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	114.4		0		0	
4	114.7	119	0	4.7	0	4.7
5	113.8		0		0	
6.3	114		0		0	
8	113.6	118.3	0	42.7	0	98.8
10	113.1		42.7		98.8	
12.5	113		49.6		101.8	
16	112.6	118.4	55.9	65.1	104.1	110.6
20	115		64.5		108.8	
25	114.8		70.1		110.4	
31.5	113.5	119.4	74.1	82	110.5	116.5
40	115.6		81		113.6	
50	116.5		86.3		115.2	
63	118.7	121.5	92.5	95.5	117.9	120.6
80	114		91.5		113.5	
100	113.6		94.5		113.3	
125	113.2	119	97.1	103.9	113	118.9
160	115.7		102.3		115.6	
200	117.4		106.5		117.4	
250	114.2	121.3	105.6	113	114.2	121.3
315	117.5		110.9		117.5	
400	117.5		112.7		117.5	
500	118.6	122.9	115.4	119.8	118.6	122.9
630	118.3		116.4		118.3	
800	118.6		117.8		118.6	
1,000	120.5	124.8	120.5	124.9	120.5	124.8
1,250	120.8		121.4		120.8	
1,600	121.5		122.5		121.4	
2,000	121.7	126.9	122.9	128.1	121.5	126.7
2,500	123.2		124.5		122.9	
3,150	127		128.2		126.5	
4,000	122.3	128.9	123.3	130	121.5	128.2
5,000	120.5		121		119.2	
6,300	124.9		124.8		122.9	
8,000	122.2	128.1	121.1	127.2	119.2	125.3
10,000	122.4		119.9		118	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 134.9 dB OASLA = 134.2 dB(A)

OASLC = 133.8 dB(C) C-A = -.4 dB

APPENDIX H
Exterior Near-Field and Interior Noise on the
TF41-A1 Engine

(This page left blank)

TABLE H-1
POWER CONDITIONS FOR EXTERIOR NEAR-FIELD AND
INTERIOR NOISE MEASUREMENTS FOR THE TF41 ENGINE

<u>POWER</u>	<u>%RPM</u>
Idle	57.2
80 % (Intermediate)	80.7
Military	96.5

Table H-2: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF41 ENGINE AT IDLE POWER.
LOCATION: MAIN DOOR

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	90		0		0	
4	86	92.8	0	4.8	0	4.8
5	87		0		0	
6.3	89		0		0	
8	91	94.8	0	18.7	0	74.7
10	89		18.6		74.7	
12.5	87		23.6		75.8	
16	83	89.5	26.3	33.9	74.5	80.6
20	83		32.5		76.8	
25	84		39.3		79.6	
31.5	84	87.6	44.6	48.1	81	84.3
40	79		44.4		77	
50	74		43.8		72.7	
63	90.5	90.7	64.3	64.5	89.7	89.9
80	72.7		50.2		72.2	
100	69.5		50.4		69.2	
125	70.1	73.2	54	56.5	69.9	73
160	62.5		49.1		62.4	
200	60.2		49.3		60.2	
250	55.8	62.5	47.2	53.3	55.8	62.5
315	55.4		48.8		55.4	
400	54.9		50.1		54.9	
500	56.1	59.7	52.9	56.5	56.1	59.7
630	53.5		51.6		53.5	
800	54.4		53.6		54.4	
1,000	57.2	69.5	57.2	70	57.2	69.5
1,250	69.1		69.7		69.1	
1,600	61.5		62.5		61.4	
2,000	66.6	70.6	67.8	71.8	66.4	70.4
2,500	67.4		68.7		67.1	
3,150	67.2		68.4		66.7	
4,000	68.9	73.2	69.9	74.1	68.1	72.3
5,000	69		69.5		67.7	
6,300	69.8		69.7		67.8	
8,000	67.6	72.6	66.5	71.9	64.6	70
10,000	64.6		62.1		60.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 98.7 dB OASLA = 78.5 dB(A)

OASLC = 91.6 dB(C) C-A = 13.1 dB

**Table H-3: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF41 ENGINE AT IDLE POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	81		0		0	
4	79	87.2	0	4.8	0	4.8
5	85		0		0	
6.3	83		0		0	
8	83	87.2	0	11.3	0	66.7
10	81		10.6		66.7	
12.5	80		16.6		68.8	
16	81	85.8	24.3	32.4	72.5	78
20	82		31.5		75.8	
25	81		36.3		76.6	
31.5	80	84.6	40.6	45.8	77	81.3
40	78		43.4		76	
50	77		46.8		75.7	
63	87.6	88	61.4	61.7	86.8	87.2
80	69.2		46.7		68.7	
100	66.6		47.5		66.3	
125	66.1	69.7	50	52.8	65.9	69.5
160	58.8		45.4		58.7	
200	63		52.1		63	
250	62.6	68.3	54	60.3	62.6	68.3
315	64.8		58.2		64.8	
400	69.7		64.9		69.7	
500	74.3	77.4	71.1	74.5	74.3	77.4
630	72.7		70.8		72.7	
800	69.6		68.8		69.6	
1,000	74.4	87.2	74.4	87.8	74.4	87.2
1,250	86.9		87.5		86.9	
1,600	74.9		75.9		74.8	
2,000	84.1	86.2	85.3	87.4	83.9	85.9
2,500	81		82.3		80.7	
3,150	78.3		79.5		77.8	
4,000	72.3	79.5	73.3	80.6	71.5	78.9
5,000	66.1		66.6		64.8	
6,300	64		63.9		62	
8,000	66.2	70.1	65.1	68.9	63.2	67
10,000	65.6		63.1		61.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 95.4 dB OASLA = 91.1 dB(A)

OASLC = 92.6 dB(C) C-A = 1.5 dB

Table H-4: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF41 ENGINE AT IDLE POWER
LOCATION: VIEW WINDOW

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	74		0		0	
4	73	83.9	0	4.8	0	4.8
5	83		0		0	
6.3	82		0		0	
8	82	85.3	0	8.9	0	63.7
10	78		7.6		63.7	
12.5	78		14.6		66.8	
16	84	89.1	27.3	37	75.5	82.1
20	87		36.5		80.8	
25	88		43.3		83.6	
31.5	81	89.5	41.6	49	78	85.7
40	81		46.4		79	
50	75		44.8		73.7	
63	78.1	80.1	51.9	53.3	77.3	79.1
80	67.1		44.6		66.6	
100	67.2		48.1		66.9	
125	67.1	70.5	51	53.5	66.9	70.2
160	58.7		45.3		58.6	
200	56		45.1		56	
250	54.2	60.8	45.6	52.8	54.2	60.8
315	57.4		50.8		57.4	
400	62.7		57.9		62.7	
500	66.4	69.3	63.2	66.3	66.4	69.3
630	63.7		61.8		63.7	
800	60.9		60.1		60.9	
1,000	65.8	75.3	65.8	75.8	65.8	75.3
1,250	74.6		75.2		74.6	
1,600	63.7		64.7		63.6	
2,000	76.7	78.7	77.9	80	76.5	78.5
2,500	74.1		75.4		73.8	
3,150	70.3		71.5		69.8	
4,000	62.3	71.2	63.3	72.3	61.5	70.6
5,000	58.9		59.4		57.6	
6,300	57.4		57.3		55.4	
8,000	56.7	61.1	55.6	60.2	53.7	58.3
10,000	54.4		51.9		50	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 94.1 dB OASLA = 82.1 dB(A)

OASLC = 88.8 dB(C) C-A = 6.7 dB

**Table H-5: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF41 ENGINE AT IDLE POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	83		0		0	
4	81	88.1	0	4.8	0	4.8
5	85		0		0	
6.3	82		0		0	
8	80	86.6	0	9.7	0	64.7
10	79		8.6		64.7	
12.5	80		16.6		68.8	
16	81	86.8	24.3	34.1	72.5	79.3
20	84		33.5		77.8	
25	84		39.3		79.6	
31.5	81	86.3	41.6	46.1	78	82.7
40	77		42.4		75	
50	73		42.8		71.7	
63	78.8	79.9	52.6	53.2	78	79
80	62.5		40		62	
100	62.1		43		61.8	
125	65.4	67.8	49.3	51.7	65.2	67.6
160	59.7		46.3		59.6	
200	62.8		51.9		62.8	
250	60.3	68.2	51.7	60.4	60.3	68.2
315	65.6		59		65.6	
400	67.3		62.5		67.3	
500	66.5	70.3	63.3	66.5	66.5	70.3
630	58.9		57		58.9	
800	60.3		59.5		60.3	
1,000	61.5	67.9	61.5	68.1	61.5	67.9
1,250	65.6		66.2		65.6	
1,600	60.4		61.4		60.3	
2,000	62.9	67	64.1	68.2	62.7	66.8
2,500	62.9		64.2		62.6	
3,150	63.5		64.7		63	
4,000	56.8	64.8	57.8	65.9	56	64.1
5,000	54.4		54.9		53.1	
6,300	52.2		52.1		50.2	
8,000	55.1	58.7	54	57.4	52.1	55.5
10,000	54		51.5		49.6	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 93.1 dB OASLA = 73.7 dB(A)

OASLC = 85.9 dB(C) C-A = 12.2 dB

**Table H-6: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF41 ENGINE AT INTERMEDIATE POWER
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	94		0		0	
4	94	98.5	0	4.8	0	4.8
5	93		0		0	
6.3	95		0		0	
8	99	101.3	0	28.6	0	84.7
10	99		28.6		84.7	
12.5	98		34.6		86.8	
16	96	100.5	39.3	43.1	87.5	91.1
20	90		39.5		83.8	
25	102		57.3		97.6	
31.5	99	103.9	59.6	62.2	96	100.1
40	88		53.4		86	
50	88		57.8		86.7	
63	89.6	93.3	63.4	68	88.8	92.5
80	87.9		65.4		87.4	
100	85		65.9		84.7	
125	81	86.9	64.9	69.6	80.8	86.6
160	76.6		63.2		76.5	
200	73.7		62.8		73.7	
250	67.3	75.8	58.7	66.7	67.3	75.8
315	69.7		63.1		69.7	
400	65.2		60.4		65.2	
500	65.9	69.9	62.7	66.6	65.9	69.9
630	64.1		62.2		64.1	
800	62.4		61.6		62.4	
1,000	62.8	67.6	62.8	67.6	62.8	67.6
1,250	63.3		63.9		63.3	
1,600	64.6		65.6		64.5	
2,000	69.4	80.4	70.6	81.7	69.2	80.1
2,500	79.9		81.2		79.6	
3,150	78.8		80		78.3	
4,000	75.4	84.8	76.4	85.5	74.6	83.8
5,000	82.8		83.3		81.5	
6,300	77.9		77.8		75.9	
8,000	78.6	82.3	77.5	81.4	75.6	79.5
10,000	75.6		73.1		71.2	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 108.1 dB OASLA = 88.3 dB(A)

OASLC = 101.6 dB(C) C-A = 13.3 dB

**Table H-7: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF41 ENGINE AT INTERMEDIATE POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	82		0		0	
4	80	88.2	0	4.8	0	4.8
5	86		0		0	
6.3	85		0		0	
8	88	90.4	0	15.8	0	71.7
10	86		15.6		71.7	
12.5	86		22.6		74.8	
16	94	99	37.3	47	85.5	92
20	97		46.5		90.8	
25	97		52.3		92.6	
31.5	89	98.3	49.6	57.8	86	94.5
40	90		55.4		88	
50	89		58.8		87.7	
63	90.9	93.5	64.7	66.9	90.1	92.6
80	83.3		60.8		82.8	
100	80		60.9		79.7	
125	80	83.6	63.9	66.9	79.8	83.3
160	74.4		61		74.3	
200	73.7		62.8		73.7	
250	73.4	79.9	64.8	72.1	73.4	79.9
315	77.1		70.5		77.1	
400	80		75.2		80	
500	84.1	87	80.9	84	84.1	87
630	81.7		79.8		81.7	
800	77.7		76.9		77.7	
1,000	77.2	82.2	77.2	82.1	77.2	82.2
1,250	77.3		77.9		77.3	
1,600	72.5		73.5		72.4	
2,000	82.1	92.9	83.3	94.2	81.9	92.6
2,500	92.5		93.8		92.2	
3,150	88.5		89.7		88	
4,000	77.4	89.9	78.4	90.9	76.6	89.2
5,000	83.1		83.6		81.8	
6,300	73.8		73.7		71.8	
8,000	76.7	80.6	75.6	79.3	73.7	77.4
10,000	76.5		74		72.1	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 103.6 dB OASLA = 96.4 dB(A)

OASLC = 100 dB(C) C-A = 3.6 dB

**Table H-8: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF41 ENGINE AT INTERMEDIATE POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	85		0		0	
4	84	89.5	0	4.8	C	4.8
5	85		0		0	
6.3	87		0		0	
8	89	92.1	0	17.7	0	73.7
10	88		17.6		73.7	
12.5	90		26.6		78.8	
16	101	109.7	44.3	58.7	92.5	103.2
20	109		58.5		102.8	
25	107		62.3		102.6	
31.5	98	107.8	58.6	65.5	95	103.7
40	95		60.4		93	
50	87		56.8		85.7	
63	86.6	91.1	60.4	65.4	85.8	90.2
80	85.2		62.7		84.7	
100	83.4		64.3		83.1	
125	76.1	84.3	60	66.1	75.9	84
160	69.1		55.7		69	
200	72.2		61.3		72.2	
250	66.1	74.8	57.5	66	66.1	74.8
315	69.7		63.1		69.7	
400	71.7		66.9		71.7	
500	77.3	79.5	74.1	76.4	77.3	79.5
630	73.2		71.3		73.2	
800	68.5		67.7		68.5	
1,000	66.3	71.7	66.3	71.4	66.3	71.7
1,250	65.2		65.8		65.2	
1,600	63.2		64.2		63.1	
2,000	74.8	84.9	76	86.2	74.6	84.6
2,500	84.4		85.7		84.1	
3,150	78		79.2		77.5	
4,000	66.7	79.8	67.7	80.8	65.9	79.1
5,000	74.5		75		73.2	
6,300	65.2		65.1		63.2	
8,000	67.4	71.2	66.3	70	64.4	68.1
10,000	66.5		64		62.1	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 112 dB OASLA = 87.9 dB(A)

OASLC = 106.6 dB(C) C-A = 18.7 dB

**Table H-9: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF41 ENGINE AT INTERMEDIATE POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	81		0		0	
4	82	89	0	4.8	0	4.8
5	87		0		0	
6.3	86		0		0	
8	86	89.6	0	19.7	0	75.7
10	90		19.6		75.7	
12.5	92		28.6		80.8	
16	95	101	38.3	48.9	86.5	93.9
20	99		48.5		92.8	
25	102		57.3		97.6	
31.5	96	103.2	56.6	61.6	93	99.3
40	91		56.4		89	
50	87		56.8		85.7	
63	86.1	89.9	59.9	62.8	85.3	88.9
80	78.9		56.4		78.4	
100	77.1		58		76.8	
125	76.8	80.5	60.7	63.7	76.6	80.2
160	70.8		57.4		70.7	
200	72.1		61.2		72.1	
250	74.1	79.1	65.5	71.3	74.1	79.1
315	76		69.4		76	
400	78.6		73.8		78.6	
500	76.9	81.2	73.7	77.4	76.9	81.2
630	70.5		68.6		70.5	
800	68.4		67.6		68.4	
1,000	69.5	73.3	69.5	73.2	69.5	73.3
1,250	67.4		68		67.4	
1,600	65		66		64.9	
2,000	67.1	75.2	68.3	76.4	66.9	74.9
2,500	73.9		75.2		73.6	
3,150	70.7		71.9		70.2	
4,000	63.9	71.9	64.9	73.1	63.1	71.3
5,000	61.6		62.1		60.3	
6,300	61.5		61.4		59.5	
8,000	65.3	68.7	64.2	67.4	62.3	65.5
10,000	64.2		61.7		59.8	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 105.8 dB OASLA = 82.2 dB(A)

OASLC = 100.9 dB(C) C-A = 18.7 dB

**Table H-10: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF41 ENGINE AT MILITARY POWER.
LOCATION: MAIN DOOR**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	93		0		0	
4	97	99.5	0	4.8	0	4.8
5	93		0		0	
6.3	98		0		0	
8	101	103.2	0	28.6	0	84.7
10	99		28.6		84.7	
12.5	96		32.6		84.8	
16	96	99.6	39.3	43.3	87.5	90.7
20	91		40.5		84.8	
25	100		55.3		95.0	
31.5	96	101.8	56.6	60.9	93	98.1
40	91		56.4		89	
50	90		59.8		88.7	
63	94.2	99.6	68	75.8	93.4	98.9
80	97.4		74.9		96.9	
100	89.4		70.3		89.1	
125	84.7	92.2	68.6	76.1	84.5	92
160	87		73.6		86.9	
200	84.4		73.5		84.4	
250	83.2	88.8	74.6	80.4	83.2	88.8
315	84.3		77.7		84.3	
400	86.6		81.8		86.6	
500	83.4	89	80.2	85.2	83.4	89
630	80.8		78.9		80.8	
800	80.1		79.3		80.1	
1,000	79.5	84.6	79.5	84.6	79.5	84.6
1,250	80		80.6		80	
1,600	82.7		83.7		82.6	
2,000	84.6	89.4	85.8	90.6	84.4	89.2
2,500	86		87.3		85.7	
3,150	88		89.2		87.5	
4,000	88.3	92.2	89.3	93.2	87.5	91.4
5,000	85.5		86		84.2	
6,300	84.9		84.8		82.9	
8,000	82.9	87.6	81.8	87	79.9	85.1
10,000	78.9		76.4		74.5	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 108.8 dB OASLA = 96.6 dB(A)

OASLC = 103.3 dB(C) C-A = 6.8 dB

**Table H-11: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF41 ENGINE AT MILITARY POWER.
LOCATION: DOOR 2**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	88		0		0	
4	86	92.6	0	4.8	0	4.8
5	89		0		0	
6.3	90		0		0	
8	93	95.6	0	25.6	0	81.7
10	96		25.6		81.7	
12.5	94		30.6		82.8	
16	95	100.3	38.3	47.2	86.5	92.6
20	97		46.5		90.8	
25	96		51.3		91.6	
31.5	93	99	53.6	60.2	90	95.7
40	93		58.4		91	
50	89		58.8		87.7	
63	93.6	97.4	67.4	73	92.8	96.7
80	93.8		71.3		93.3	
100	87.7		68.6		87.4	
125	82.5	90.2	66.4	73.8	82.3	89.9
160	84.3		70.9		84.2	
200	86.3		75.4		86.3	
250	91.2	98.8	82.6	91.8	91.2	98.8
315	97.7		91.1		97.7	
400	103.1		98.3		103.1	
500	105.4	108.7	102.2	105.5	105.4	108.7
630	102.7		100.8		102.7	
800	99.2		98.4		99.2	
1,000	97.5	102.4	97.5	102.2	97.5	102.4
1,250	95.4		96		95.4	
1,600	90.6		91.6		90.5	
2,000	97.1	101.5	98.3	102.8	96.9	101.3
2,500	99		100.3		98.7	
3,150	98.2		99.4		97.7	
4,000	93.1	99.5	94.1	100.6	92.3	98.9
5,000	83.5		84		82.2	
6,300	78.3		78.2		76.3	
8,000	80.1	84.3	79	83	77.1	81.1
10,000	79.9		77.4		75.5	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 111.9 dB OASLA = 109.2 dB(A)

OASLC = 111.2 dB(C) C-A = 2 dB

**Table H-12: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF41 ENGINE AT MILITARY POWER.
LOCATION: VIEW WINDOW**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	87		0		0	
4	87	92.1	0	4.8	0	4.8
5	88		0		0	
6.3	90		0		0	
8	94	96	0	25.6	0	81.7
10	96		25.6		81.7	
12.5	97		33.6		85.8	
16	104	109.7	47.3	57.9	95.5	102.8
20	108		57.5		101.8	
25	106		61.3		101.6	
31.5	98	107.3	58.6	66.8	95	103.5
40	99		64.4		97	
50	90		59.8		88.7	
63	92	95.5	65.8	70.2	91.2	94.7
80	90		67.5		89.5	
100	86.2		67.1		85.9	
125	82.8	88.8	66.7	72.2	82.6	88.5
160	81.6		68.2		81.5	
200	83		72.1		83	
250	84.7	91.1	76.1	83.6	84.7	91.1
315	89		82.4		89	
400	95.1		90.3		95.1	
500	96.1	99.8	92.9	96.4	96.1	99.8
630	93.3		91.4		93.3	
800	88.1		87.3		88.1	
1,000	85.8	91	85.8	90.8	85.8	91
1,250	83.8		84.4		83.8	
1,600	82		83		81.9	
2,000	91.8	95.9	93	97.2	91.6	95.7
2,500	93.5		94.8		93.2	
3,150	90.5		91.7		90	
4,000	83.5	91.4	84.5	92.6	82.7	90.9
5,000	76.7		77.2		75.4	
6,300	71.5		71.4		69.5	
8,000	72.9	76.8	71.8	75.6	69.9	73.7
10,000	71.4		68.9		67	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 112.5 dB OASLA = 101.1 dB(A)

OASLC = 108 dB(C) C-A = 6.9 dB

**Table H-13: T9NSS EXTERIOR NEAR FIELD NOISE
WITH TF41 ENGINE AT MILITARY POWER.
LOCATION: DOOR 4**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	80		0		0	
4	86	92.4	0	4.8	0	4.8
5	91		0		0	
6.3	92		0		0	
8	94	96.2	0	24.6	0	80.7
10	95		24.6		80.7	
12.5	98		34.6		86.8	
16	97	102.5	40.3	48.4	88.5	94.3
20	98		47.5		91.8	
25	102		57.3		97.6	
31.5	97	104	57.6	64	94	100.3
40	96		61.4		94	
50	95		64.8		93.7	
63	90.7	97.2	64.5	70.4	89.9	96.2
80	89.6		67.1		89.1	
100	88.3		69.2		88	
125	82.3	90.5	66.2	74.1	82.1	90.3
160	84.6		71.2		84.5	
200	87		76.1		87	
250	84.6	92	76	84.1	84.6	92
315	89		82.4		89	
400	90.4		85.6		90.4	
500	89.4	93.9	86.2	90.4	89.4	93.9
630	86.9		85		86.9	
800	88.3		87.5		88.3	
1,000	90.7	94.1	90.7	94.1	90.7	94.1
1,250	88.6		89.2		88.6	
1,600	87.5		88.5		87.4	
2,000	89.5	93.3	90.7	94.5	89.3	93.1
2,500	88.3		89.6		88	
3,150	88.2		89.4		87.7	
4,000	80.8	89.2	81.8	90.4	80	88.6
5,000	77.6		78.1		76.3	
6,300	74.2		74.1		72.2	
8,000	75.3	79.4	74.2	78.3	72.3	76.4
10,000	74.3		71.8		69.9	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 108.3 dB OASLA = 99 dB(A)

OASLC = 104.6 dB(C) C-A = 5.6 dB

**Table H-14: T9NSS AVERAGE INTERIOR NOISE
WITH TF41 ENGINE AT IDLE POWER.
LOCATION: AVERAGE FROM POSITIONS I & E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	95.6		0		0	
4	94.8	99.3	0	4.7	0	4.7
5	92.8		0		0	
6.3	96.4		0		0	
8	94.3	99.7	0	23.4	0	79.5
10	93.8		23.4		79.5	
12.5	90.9		27.5		79.7	
16	91.1	97.9	34.4	45.6	82.6	90.6
20	95.7		45.2		89.5	
25	96.9		52.2		92.5	
31.5	94.6	102.4	55.2	65.8	91.6	99.7
40	99.9		65.3		97.9	
50	102		71.8		100.7	
63	107	108.2	80.8	81.5	106.2	107.3
80	92		69.5		91.5	
100	93.7		74.6		93.4	
125	99.2	101.6	83.1	86.1	99	101.4
160	95.9		82.5		95.8	
200	92.9		82		92.9	
250	94	98.5	85.4	90.3	94	98.5
315	94.3		87.7		94.3	
400	95.1		90.3		95.1	
500	97.4	101.1	94.2	98	97.4	101.1
630	96.2		94.3		96.2	
800	95.6		94.8		95.6	
1,000	98	109.7	98	110.2	98	109.7
1,250	109.3		109.9		109.3	
1,600	101.6		102.6		101.5	
2,000	101	106.1	102.2	107.3	100.8	105.9
2,500	101.6		102.9		101.3	
3,150	103.6		104.8		103.1	
4,000	101.8	107.3	102.8	108.2	101	106.5
5,000	102		102.5		100.7	
6,300	101.2		101.1		99.2	
8,000	101.4	106.2	100.3	105	98.4	103.1
10,000	101.7		99.2		97.3	

***** OVERALL LEVELS (3.15 - 10000 Hz) *****

OASPL = 115.8 dB OASLA = 114.3 dB(A)

OASLC = 114.8 dB(C) C-A = .5 dB

**Table H-15: T9NSS AVERAGE INTERIOR NOISE
WITH TF41 ENGINE AT INTERMEDIATE POWER.
LOCATION: AVERAGE FROM POSITION I & E**

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL [dB(A)]	A-WEIGHTED OCTAVE BAND SL [dB(A)]	C-WEIGHTED SOUND LEVEL [dB(C)]	C-WEIGHTED OCTAVE BAND SL [dB(C)]
3.15	101.3		0		0	
4	101.5	105.5	0	4.7	0	4.7
5	99		0		0	
6.3	103.4		0		0	
8	103	108	0	33.1	0	89.2
10	103.5		33.1		89.2	
12.5	103.2		39.8		92	
16	104.8	113.7	48.1	62.3	96.3	107
20	112.7		62.2		106.5	
25	114.8		70.1		110.4	
31.5	111.5	117.9	72.1	79.3	108.5	114.6
40	112.4		77.8		110.4	
50	110.1		79.9		108.8	
63	105.4	112.3	79.2	85.6	104.6	111.2
80	105.2		82.7		104.7	
100	108.5		89.4		108.2	
125	113.1	115.7	97	100.2	112.9	115.5
160	110.1		96.7		110	
200	106.4		95.5		106.4	
250	109.2	113	100.6	104.9	109.2	113
315	108.7		102.1		108.7	
400	109.3		104.5		109.3	
500	109.6	114	106.4	110.8	109.6	114
630	108.8		106.9		108.8	
800	107.4		106.6		107.4	
1,000	107	112	107	112	107	112
1,250	107.4		108		107.4	
1,600	107.4		108.4		107.3	
2,000	109.2	118.5	110.4	119.8	109	118.2
2,500	117.6		118.9		117.3	
3,150	111.2		112.4		110.7	
4,000	110.2	116.5	111.2	117.3	109.4	115.5
5,000	113.3		113.8		112	
6,300	112.9		112.8		110.9	
8,000	114.5	118.9	113.4	117.6	111.5	115.7
10,000	114.9		112.4		110.5	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 126.1 dB OASLA = 123.8 dB(A)

OASLC = 124.6 dB(C) C-A = .8 dB

Table H-16: T9NSS INTERIOR NOISE
WITH TF41 ENGINE AT MILITARY POWER.
LOCATION: AVERAGE FROM POSITION I

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	OCTAVE BAND SPL (dB)	A-WEIGHTED SOUND LEVEL (dB(A))	A-WEIGHTED OCTAVE BAND SL (dB(A))	C-WEIGHTED SOUND LEVEL (dB(C))	C-WEIGHTED OCTAVE BAND SL (dB(C))
3.15	111.4		0		0	
4	112.4	115.8	0	0	0	0
5	108.1		0		0	
6.3	108.1		0		0	
8	106.9	112	0	36.1	0	92.2
10	106.5		36.1		92.2	
12.5	106.7		43.3		95.5	
16	106.8	112.7	50.1	59.8	98.3	105.1
20	109.7		59.2		103.5	
25	105.7		61		101.3	
31.5	107	113.5	67.6	77.39	104	111
40	111.4		76.8		109.4	
50	110.9		80.7		109.6	
63	110	116.6	83.8	92.24	109.2	115.8
80	113.7		91.2		113.2	
100	114.5		95.4		114.2	
125	112.9	119	96.8	103.5	112.7	118.8
160	114.9		101.5		114.8	
200	114.2		103.3		114.2	
250	117.9	122.7	109.3	115.1	117.9	122.7
315	120		113.4		120	
400	128.9		124.1		128.9	
500	122.1	130.2	118.9	126	122.1	130.2
630	120.1		118.2		120.1	
800	119.6		118.8		119.6	
1,000	120.4	124.9	120.4	124.9	120.4	124.9
1,250	120.35		120.95		120.35	
1,600	119.75		120.75		119.65	
2,000	119.25	124	120.45	125.1	119.05	123.8
2,500	118.55		119.85		118.25	
3,150	118.95		120.15		118.45	
4,000	118.75	122.7	119.75	123.7	117.95	122
5,000	115.4		115.9		114.1	
6,300	114.8		114.7		112.8	
8,000	114.2	119	113.1	118	111.2	116.1
10,000	113.65		111.15		109.25	

*** OVERALL LEVELS (3.15 - 10000 Hz) ***

OASPL = 133.6 dB OASLA = 131.4 dB(A)

OASLC = 133.2 dB(C) C-A = 1.8 dB

DISTRIBUTION LIST

	Copies
HQ HSD/XA Brooks AFB TX 78235-5000	1
AAMRL/BBE Wright-Patterson AFB OH 45433-6573	5
SA ALC/MMGR Kelly AFB TX 78241-5001	5
HQ AFLC/SGP Wright-Patterson AFB OH 45433-5001	1
HQ AAC/SGPB Elmendorf AFB AK 99506-5001	1
HQ AU/SGPB Maxwell AFB AL 36112-5304	1
HQ USAF Academy/SGPB USAF Academy CO 80840-5470	1
HQ AFSC/SGPB Andrews AFB DC 20334-5000	1
HQ USAF/SGPA Bolling AFB DC 20332-6188	1
HQ AFSPACECOM/SGPB Peterson AFB CO 80914-5001	1
HQ ATC/SGPB Randolph AFB TX 78150-5001	1
HQ MAC/SGPB Scott AFB IL 62225-5001	1
HQ TAC/SGPB Langley AFB VA 23665-5001	1
HQ SAC/SGPB Offutt AFB NE 68113-5001	1
HQ PACAF/SGPB Hickam AFB HI 96853-5001	1
HQ USAFE/SGPA APO New York 09012-5001	1

DISTRIBUTION LIST

(Cont'd)

HQ AFRES/SGPB Robins AFB GA 31098-6001	1
HQ ANGSC/SGB Andrews AFB DC 20331-6008	1
7100 CSW Medical Center/SGB APO New York 09220-5300	3
OL AD, AFOEHL APO San Francisco 96274-5000	3
USAFSAM/TSK Brooks AFB TX 78235-5301	3
USAFSAM/ED/EDH/EDZ Brooks AFB TX 78235-5301	1 ea
101 USAF Clinic/SGPB (SAC) Bangor ANGB ME 04401-3099	1
108 TAC Clinic/SGPB (TAC) (MRS) McGuire AFB NJ 08641-6004	1
126 USAF Clinic/SGPB (SAC) P.O. Box 66486 O'Hare ARFF IL 60666-0486	1
151 USAF Clinic/SGPB (SAC) 765 N. 2200 West Salt Lake City UT 84116-2999	1
161 USAF Clinic/SGPB (SAC) 2001 S. 32nd ST Phoenix AZ 85034-6098	1
170 USAF Clinic/SGPB (TAC) (MRS) McGuire AFB NJ 08641-6004	1
812 Strategic Hospital/SGPB Ellsworth AFB SD 57706-5300	1
842 Strategic Hospital/SGPB Grand Forks AFB ND 58205-5300	1
416 Strategic Hospital/SGPB Griffiss AFB NY 13441-5300	1
96 Strategic Hospital/SGPB Dyess AFB TX 79601-5300	1

(Cont'd)

93 Strategic Hospital/SGPB Castle AFB CA 95342-5300	1
92 Strategic Hospital/SGPB Fairchild AFB WA 99011-5300	1
22 Strategic Hospital/SGPB March AFB CA 92518-5300	1
USAF Hospital Mather/SGPB Mather AFB CA 95655-5300	1
9 Strategic Hospital/SGPB Beale AFB CA 95903-5300	1
36 TFW Hospital/SGPB APO New York 09132-5300	1
43 Strategic Clinic/SGPB APO San Francisco 96334-5300	
2 Strategic Hospital/SGPB Barksdale AFB LA 71110-5300	1
97 Strategic Hospital/SGPB Eaker AFB AR 72317-5300	1
Ehrling Bergquist Strategic Hospital/SGPB Offutt AFB NE 68113-5300	1
857 Strategic Hospital/SGPB Minot AFB ND 58705-5300	1
410 Strategic Hospital/SGPB K.I. Sawyer AFB MI 49843-5300	1
379 Strategic Hospital/SGPB Wurtsmith AFB MI 48753-5300	1
42 Strategic Hospital/SGPB Loring AFB ME 04751-5300	1
USAF Clinic/SGPB1 APO New York 09125-5300	1
Defense Technical Information Center (DTIC) Cameron Station Alexandria VA 22304-6145	2