



REPORT FAA-EQ-76-6

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# FAA INTEGRATED NOISE MODEL DATA BASE

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16. Abstract <p>The FAA Integrated Noise Model computer program INMPROG has been made available to the public for computing a variety of noise indices in the vicinity of airports. One component of this program package is a data library which provides both acoustic and operational data for certain standard aircraft types and flight procedures.</p> <p>This paper presents the data used to construct the supplied program library. It thus provides the information needed to reproduce a particular analysis. Further, it provides a necessary reference point for the user who specifies his own operational procedures.</p>			
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ABSTRACT

The FAA Integrated Noise Model computer program INMPROG has been made available to the public for computing a variety of noise indices in the vicinity of airports. One component of this program package is a data library which provides both acoustic and operational data for certain standard aircraft types and flight procedures.

This paper presents the data used to construct the supplied program library. It thus provides the information needed to reproduce a particular analysis. Further, it provides a necessary reference point for the user who specifies his own operational procedures.

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## 1. INTRODUCTION

The FAA Integrated Noise Model (INM) provides a conceptually simple method for characterizing aircraft noise near airports. It includes a determination of the total time that the sound level exceeds certain thresholds, and also the equivalent A-weighted sound level,  $L_{eq}$ , and the day-night average sound level,  $L_{dn}$ , at a number of points surrounding a particular airport. Thus, several methodologies are integrated into a single model which provides a very complete picture of the noise environment.

The computer program INMPROG is available to provide all of the information required. Times-above-threshold are computed using six different thresholds, from 65 dBA to 115 dBA in 10 dBA increments. In addition to the total exposure per day, the exposures occurring during the more sensitive evening hours (7 P.M. - 10 P.M.) and night hours (10 P.M. - 7 A.M.) are presented separately. The equivalent A-weighted sound level  $L_{eq}$ , and the day-night average sound level  $L_{dn}$ , are also computed.

Noise data for the common aircraft types are provided within the program. For those aircraft which may be retrofitted to meet FAR-36 requirements, data for both "standard" aircraft and aircraft equipped with quiet nacelles are included. Certain standard operational procedures - specifically takeoffs utilizing Air Transport Association (ATA) or National Business Aircraft Association (NBAA) procedures at a number of gross weights, and landings with maximum certificated flap settings - are assigned operational codes. These codes access a library of pre-computed noise exposure grids available to the program. Other operational procedures may be specified by the user. These cause additional noise exposure grids to be generated on a temporary basis.

This paper presents the data used to construct the supplied program library. Both acoustic data and operational data (thrust, altitude, and speed profiles) are included. It thus provides the information necessary to reproduce a particular analysis.

Furthermore, the user who inputs his own operational procedures - for example to define a noise abatement alternate to a given scenario - often needs access to the baseline data, so that his own input will be consistent with the library data. Thus, for example, in comparing a standard ATA takeoff with a deep-cutback takeoff, it is desirable that the same profiles be used, in both cases, prior to cutback, so that the only variable is the cutback procedure itself.



Additionally, the user who acquires improved acoustic data may determine how different these are from the supplied data, and thus decide for which entries it is desirable to create his own library. He also has the profile data readily available.

It is intended that this document supplement the User's Guide.<sup>\*</sup> Instructions for creating user-generated library entries are given there.

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\* Mansbach, P. A. and Maginnis, F. X., "FAA Integrated Noise Model - User's Guide", FAA-EQ-76-2, The Mitre Corporation, March, 1976.

## 2. ACOUSTIC DATA

For each aircraft type, a table giving noise levels in dB(A) as a function of slant distance and engine power setting is required. These tables are assembled in the acoustic data library which is supplied with the program. This library (ddname ACDFILE) is one of the inputs to the NOISLIB noise exposure grid generator program, which is part of the INMPROG package. The procedure for adding tables and generating data entries is described in the User's Guide (op. cit.).

The acoustic data itself is presented in Appendix A. Each table has a header block listing the acoustic data code (to be referenced by the profile data), the aircraft and engine, and the excess ground attenuation (EGA) class. Only three EGA classes are presently recognized: 2-3 engine low bypass, 4 engine low bypass, and high bypass.\* Different EGA curves are used for takeoff and for landing.

The table lists slant distances, in feet, on the left. Engine power settings are listed across the top. At each intersection of slant distance and power setting is the noise level, in dB(A), for that combination.

The units in which the power settings are expressed are, in general, printed directly above the settings themselves. Four different units have been used in the supplied library, depending on the available data. Most common is the corrected net thrust per engine,  $F_N/\delta$  ('FN/DELTA'), in lbs. This is the net thrust divided by the ambient pressure relative to standard conditions;  $\delta = P/P_0$ . For the high bypass engines, referred fan speed is used. This is the fan speed, in rpm, divided by the square root of the fan inlet temperature relative to standard conditions. Referred fan speed is  $N_1/\sqrt{\theta} T_2$  ('N1/SQRT(TH)'), where  $\theta_{T_2} = T_2/T_0$ .

Several aircraft are presented in terms of "percent thrust." This is actually a nominal thrust: takeoff power is taken to be 100%; cutback power, 85%; and approach power, 40%. Note that

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\* The EGA class may be entered on a card following the ACOUSTIC card (see User's Guide). The required format is the characters EGA (upper case) in columns 1-3, and the EGA class - 1, 2, or 3 - in column 11. In the absence of an EGA card the program will use EGA = 1 (2-3 engine low bypass).

in fact the actual power settings would be different on any specific aircraft. Users requiring actual thrust settings must create their own entries.

For a few aircraft, power settings are listed simply as "power", with values 1, 2, and perhaps 3. These data are the least reliable, having been extrapolated from a single distance measurement by assuming a nominal level vs. distance decay. In these listings, 1 represents approach power, 2 represents cut-back power, and 3 represents takeoff power. Where only 1 and 2 are given, these are approach and takeoff power respectively.

Interpolation and extrapolation is performed by the programs, as needed. For this purpose, the sound pressure level in dB(A) is assumed to vary linearly with engine setting, and logarithmically with distance (i.e.  $\propto \log d$ ).

Sources for the data are presented in Table 2-1.



**TABLE 2-1  
SOURCES OF AIRCRAFT ACOUSTIC DATA**

Boeing: B. G. Williams and R. Yates, Aircraft Noise Definition, Report No. FAA-EQ-73-7, 2-5, Prepared for Federal Aviation Administration by Boeing Commercial Airplane Company, December 1973.

BB+N: D. E. Bishop, J. F. Mills, J. M. Beckman, Sound Exposure Level Versus Distance Curves for Civil Aircraft, Bolt, Beranek & Newman, October, 1974 (for GA jets); D. E. Bishop, A. P. Hays, Handbook for Developing Noise Exposure Contours for General Aviation Airports, Bolt, Beranek & Newman, October 1975 (for GA props).

FAA: Information furnished by the FAA Office of Environmental Quality.

Lockheed: N. Shapiro, et al, Commercial Aircraft Noise Definition: L-1011 Tristar, Report No. FAA-EQ-73-6, Prepared for Federal Aviation Administration by Lockheed California Company, September 1974.

McDonnell-Douglas: J. S. Goodman, et al, Aircraft Noise Definition: Phase 1 - Analysis of Existing Data for the DC-8, DC-9, and DC-10 Aircraft, Report No. FAA-EQ-73-5, Prepared for Federal Aviation Administration by Douglas Aircraft Company, August 1973.

The data from these sources was applied in the following manner.

<u>Aircraft</u>	<u>Source</u>	<u>Method</u>
Boeing 707 727 737 747	Boeing	Read from table.
DC-8-55/61,63 DC-9 DC-10	McDonnell-Douglas	Read from table.
DC-8 retrofit DC-9 retrofit		Douglas data for the baseline aircraft were adjusted by a delta equal to (baseline-retrofit) for the Boeing Aircraft with the same engines.
DC-8-30	FAA	The curve shape (dBA vs. distance) of the DC-8-63 was adjusted in height to agree with the single data point at each engine setting.
L-1011	Lockheed	Read from table.
GAJET 1,2,3 GAPRP 1,2	BB+N	SEL tables were converted to dB(A) using $dB(A) = SEL - 10 \log d + 10 \log v - C_n$ $(C_n = \sqrt{\pi} \Gamma(\frac{n}{2} - \frac{1}{2}) / \Gamma(\frac{n}{2}))$ , $n = SEL(400') - SEL(800') + 3$
BAC 1-11	FAA	The curve shape (dBA vs. distance) of the B-737-200 was adjusted in height to agree with the single data point at each engine setting.
CV-580	FAA	Single data point extrapolated using 8 dBA per doubling of distance.



### 3. PROFILE DATA

For each aircraft type and weight and for each operational procedure a profile is required. This profile specifies the aircraft's altitude, engine power setting, and speed as a function of downrange distance. It also specifies an acoustic data table which is to be used, together with the profile, to generate the noise exposure grid.

The INMPROG program package includes a noise library containing precomputed noise exposure grids for a large set of aircraft, at a variety of takeoff weights, for standard ATA (or NBAA) takeoff procedures; and for maximum certificated flap landings. This library (ddname NOISLIB) is one of the required inputs to the main INM program module.

The profiles which were used to generate this library appear in Appendix B. (Formatting is discussed in Sections 3 and 5.5 of the User's Guide, op.cit.). Each profile begins with a PROFILE card,\* on which appears the aircraft code, acoustic data code, and type of operation. The aircraft code is a four-character designation to be used for the specific aircraft/engine/weight/operational procedure being defined. The acoustic data code references one of the tables in Appendix A, and the type of operation is either T (takeoff) or L (landing).

The AIRCRAFT and PROCDES cards are informational only, documenting the aircraft type, weight, and operational procedure being defined.

The profile itself is defined by a series of POINT cards. Each POINT card specifies, in order, the downrange distance, altitude, engine power settings, and aircraft speed. In addition, for the user's convenience, the gradient of the segment ending at that point is printed alongside; for example GRAD = .030 represents a 3% climb (or descent) gradient.

Downrange distances are in feet, measured from brake release for takeoffs, and from touchdown for approaches. (Note that approaches are coded "in reverse", i.e. from the touchdown point back up the approach path). Altitudes are in feet above the runway level; engine power settings are in units appropriate to the acoustic data table, and speeds are in knots indicated air speed.

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\* In the listing in Appendix B, each line represents one card.

The flight path is defined by connecting the points with straight line segments (linear interpolation on all the variables). While not exact, the errors introduced by using these linear segments are negligible when translated into noise levels on the ground. Where profiles terminate, they are extended to 125,000 ft. or 65 dBA (whichever comes first) by linear extrapolation of the last two points. One exception to the linear interpolation is provided: if the speed at the first point is exactly 0, the first segment is assumed to be a ground run at uniform acceleration, i.e.  $v \propto \sqrt{d}$  (instead of the linear  $v \propto d$ ).

### 3.1 Procedure Definitions

#### 3.1.1 ATA (or NBAA) Takeoff

The ATA recommended takeoff procedure as used in the supplied data library is defined by five segments. These segments - ground run, takeoff, cutback, acceleration, and climbout - are defined in Table 3-1 and illustrated in Figure 3-1.

The ground run extends to the liftoff point, although distance to 35 ft. has sometimes been used as the length of this segment, with little effect on the resulting noise levels. The takeoff segment extends to 1500 ft. altitude (above the runway), and is flown at a speed of  $v_2 + 10$  knots ( $v_2 + 15$  for the B-737), where  $v_2$  signifies "takeoff safety speed". At 1500 ft. a cutback to maximum continuous limiting thrust (MCLT) is initiated; aircraft speed is maintained at the original  $v_2 + 10$ . MCLT is maintained for the remainder of the profile. At 3000 ft. altitude the acceleration phase is begun, and flaps are retracted according to schedule. An acceleration of 1 knot/sec (indicated) has been assumed. Upon reaching 250 knots and in a clean configuration, climbout at constant speed is resumed.

Although climbout normally terminates according to local ATC procedures, it has been extended to 125,000 ft. from brake release (about 25 miles) in order to have some data - admittedly uncertain - available to the program. In general, contours close well before these distances; however, noise from the aircraft at these distances may still provide some small contribution to the totals closer in, particularly in computing the duration of noise above 65 dBA.

Note that two points are required to define the cutback. The first point specifies that takeoff power be maintained until 1500 ft. altitude; the second specifies the cutback power which must be achieved shortly thereafter. In the supplied profiles the achievement of cutback has been specified to be 1000 ft.

**TABLE 3-1  
ATA TAKEOFF**

<u>SEGMENT NUMBER</u>	<u>SEGMENT NAME</u>	<u>ENGINE SETTING</u>	<u>FLAP SETTING</u>	<u>SPEED</u>	<u>END OF SEGMENT</u>
1	Ground Run	Takeoff Power	Takeoff Flaps	Starts at 0	Liftoff
2	Takeoff	Takeoff Power	Takeoff Flaps	$V_2 + 10$	1500 ft. Altitude
3	Cutback	Max Continuous Limiting Thrust	Optimum	Same	3000 ft. Altitude
4	Acceleration	Same	Retract Flaps on Schedule	Accelerate to 250	250 Knots
5	Climbout	Same	Clean	250	Open-ended (in Practice Depends on ATC Procedures)

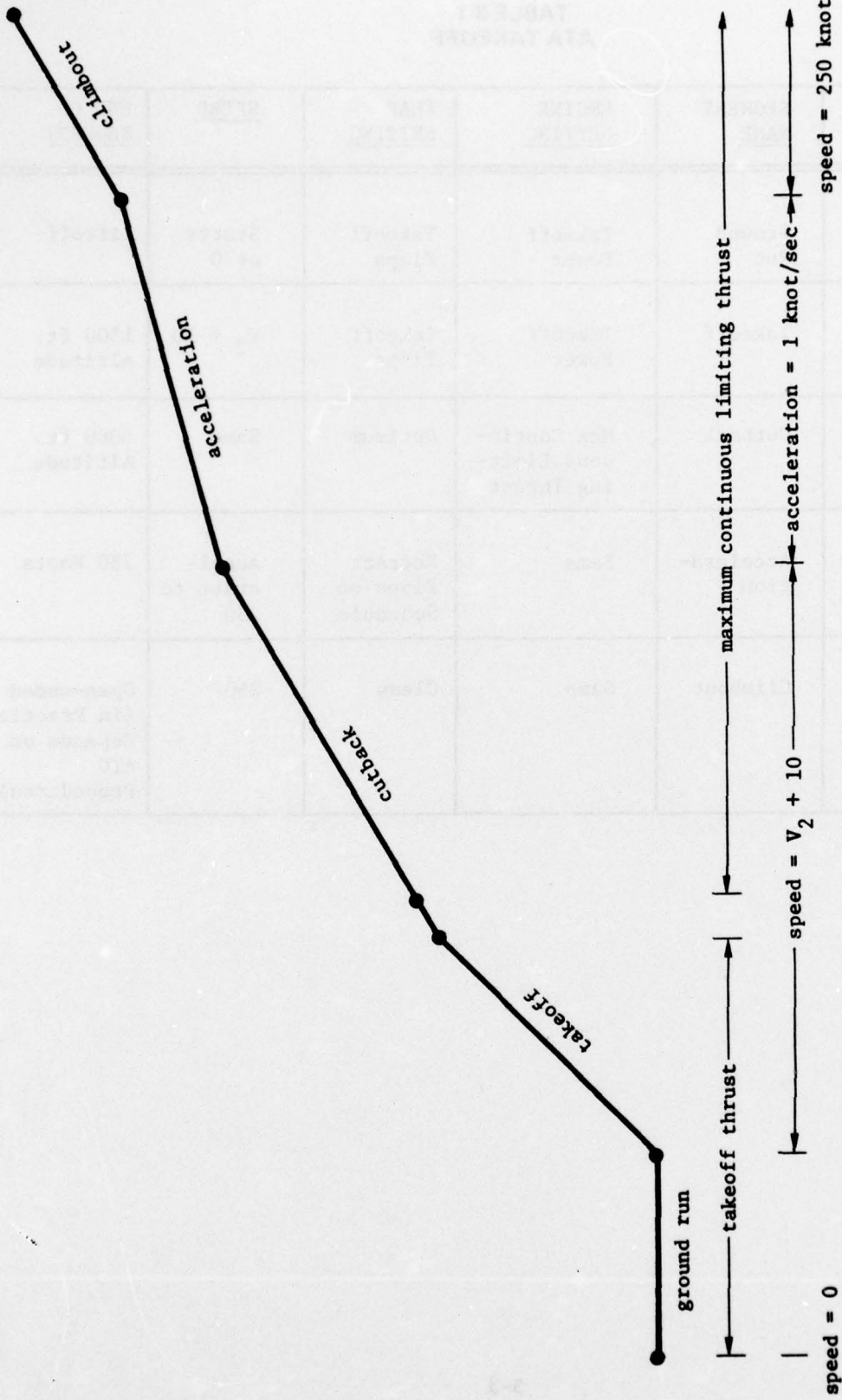


FIGURE 3-1  
ATA TAKEOFF



further downrange. This provides a smooth transition in thrust lasting roughly four seconds. Although four seconds is somewhat excessive, this assumption results in realistically smoother contours, minimizing the anomaly of abrupt changes in the contours at cutback.

It is understood that standard piloting technique is to fly each segment with the throttle set to a constant engine pressure ratio (EPR) or a constant fan speed ( $N_1$ ). Without introducing much error, we have used constant corrected net thrust ( $F_n/\delta$ ), or constant referred fan speed ( $N_1\sqrt{\theta}$ ), respectively, since these are the parameters required by the available noise tables.

Quiet nacelle or retrofit aircraft have been assumed to have the same performance as the non-retrofitted aircraft of the same type and weight.

The NBAA takeoff procedure as used in the data base is identical to the ATA procedure (Table 3-1), consistent with available data on profiles of business jet aircraft.

For all propeller-driven aircraft only the ground run and take-off segments were used. Additional data on performance and procedures was not available, and in any case the contribution of propeller aircraft to the noise near any jet airport is minimal.

### 3.1.2 Max Flaps Approach

All the approach procedures supplied in the program library are designated "max flaps approach". The aircraft have been assumed to follow a  $3^\circ$  glide slope for the entire approach; i.e. there is no level flight segment and no intercept of the glide slope. In most airport analyses the contours due to approaches are limited in extent to the final descent portion of the approach. (Where this is not the case, the user must create his own library entries based on the local flight procedures).

Maximum certificated landing flaps have been assumed for the entire approach, with the appropriate engine power settings being specified. Often an approach is conducted at a reduced flap setting (and thus a lower power setting and less noise), at least until the final few miles. The approach procedures in

the supplied library are therefore conservative, i.e. they tend to overestimate the noise. Also, maximum landing weight has been used in obtaining thrust settings, again resulting in conservative noise levels.

Approach speeds of  $1.3 v_s$  have been used in all cases (where  $v_s$  is the stalling speed), and zero wind conditions have been assumed.

The net thrust ( $F_N$ ) must be held constant throughout the approach, in order to maintain a constant glide slope and indicated airspeed. The acoustic data is defined in terms of corrected net thrust ( $F_N/\delta$ ) or referred fan speed ( $N_1/\sqrt{\theta}$ ), and hence these quantities, which appear in the profile tables, do vary with altitude.

### 3.2 Sources of Performance Data

#### 3.2.1 General

The sources of the performance data used in constructing the profiles are presented in Table 3-2. Wherever possible, performance data taken from the noise definition reports was used in preference to other sources.

The aircraft covered by these noise definition reports are listed in Table 3-3, together with the specific model of both aircraft and engine. Also listed are the flap settings which were used to select the appropriate performance charts. The engine pressure ratio (EPR) corresponding to the corrected net thrust used in the profiles is given at liftoff and again at cutback. (For the high bypass engines, percent rated fan speed is given, as is appropriate.)

The acceleration and climbout gradients require special discussion. Climbout gradients for the Douglas aircraft were available from the noise definition reports, and these were used. (This data was taken for 4000 ft. altitude.) For the Boeing aircraft some data was obtained from the Wyle study (see references in Table 3-2). Not all the aircraft types and weights were available, however; also there appeared to be some irregularities in the data. Simple aerodynamic theory provided a method of smoothing the data and of extrapolating data to different aircraft weights.

TABLE 3-2  
SOURCES OF PERFORMANCE DATA

Aircraft Type	Ground Run	Takeoff	Cutback	Acceleration	Climbout	Landing
CV580 B-737-200	FAA** N.D.R.	FAA N.D.R.	N.D.R.	Wyle + Extrapolation*	Wyle + Extrapolation	FAA N.D.R.
DC-9-10 DC-9-30	N.D.R.	N.D.R.	N.D.R.	Wyle + Extrapolation	N.D.R.	N.D.R.
BAC 1-11	FAA	FAA	FAA	Wyle(same tables as DC-9-30)	Wyle(same tables as DC-9-30)	FAA
727-100 727-200	N.D.R.	N.D.R.	N.D.R.	FAA + Extrapolation	Wyle + Extrapolation	N.D.R.
L-1011	N.D.R.	N.D.R.	Thrust obtained from Lockheed; gradients used DC-10-10 data.	Used DC-10-10 data	Used DC-10-10 data	N.D.R.
DC-10-10 DC-10-40	N.D.R.	Fan speed obtained by comparing takeoff gradient (N.D.R.) with cutback gradient chart (N.D.R.)	Thrust cutback = 2.5% of rated $N_1$ , per Lockheed Gradient from N.D.R.	Wyle + Extrapolation. (DC-10-30 data was used for the DC-10-40)	N.D.R.	N.D.R.
707-120	N.D.R.	N.D.R.	N.D.R.	Wyle + Extrapolation	Wyle + Extrapolation	N.D.R.
707-320	N.D.R.	N.D.R.	N.D.R.	Wyle DC-8-55 data at same T/W ratio, + Extrapolation	DC-8-55 N.D.R. data using $F_n/6$ for 707, + extrapolation	N.D.R.
CV-880	Wyle(same tables as DC-8-30)	Wyle	Wyle	Wyle	Wyle	FAA
DC-8-30	Wyle	Wyle	Wyle	Wyle	Wyle	FAA
DC-8-55/61	N.D.R.	N.D.R.	N.D.R.	Wyle + Extrapolation.	N.D.R.	N.D.R.
DC-8-63	N.D.R.	N.D.R.	N.D.R.	DC-8-55 gradients increased by an amount equal to the increase in the climbout gradients	N.D.R.	N.D.R.
747-100 747-200	N.D.R.	N.D.R.	N.D.R.	Wyle(747-200 data used for both)	Wyle	N.D.R.
G.A. Jets	FAA	FAA	FAA+HCI	HCI	HCI	-
G.A. Props - Typical Cessna, N.A.	Piper FAA	Piper FAA	- -	- -	- -	- -

\* Noise Definition Report. See references, listed by manufacturer

\*\* References

Boeing: B. G. Williams and R. Yates, Aircraft Noise Definition, Report No. FAA-EQ-73-7, 2-5, Prepared for Federal Aviation Administration by Boeing Commercial Airplane Company, December 1973.

FAA: Information furnished by the FAA Office of Environmental Quality.

HCI: D. C. Gray, Results of Noise Surveys of Seventeen General Aviation Type Aircraft, FAA-EQ-73-1, Prepared for FAA by Hydrospace-Challenger, Inc., December 1972.

McDonnell-Douglas: J. S. Goodman, et al, Aircraft Noise Definition: Phase I - Analysis of Existing Data for the DC-8, DE-9, and DC-10 Aircraft, Report No. FAA-EQ-73-5, Prepared for Federal Aviation Administration by Douglas Aircraft Company, August 1973.

Wyle: C. Bartell, et al, Aircraft Noise Reduction Forecast, Volume II, DOT-TST-75-4, Prepared for DOT by Wyle Laboratories, October 1974.

+ Extrapolation techniques are discussed in the text.



**TABLE 3-3  
TAKEOFF AND CUTBACK PARAMETERS**

Aircraft	Engine	Takeoff Flaps	Takeoff Thrust (EPR or % N1)	Cutback Flaps	Cutback Thrust at 1500 ft
B-737-200	JT8D-7	5°	1.93	1°	1.85
DC-9-10	JT8D-7	20°	1.95	20°	1.85
DC-9-30	JT8D-9	5°	2.00	0°	1.85
B-727-100	JT8D-1	15°	1.90	15°	1.83
B-727-200	JT8D-9	15° up to 160K lbs. 25° over 170K lbs.	1.97	15° 15°	1.85
L-1011	RB.211-22C	22°	93%N1	22°	90.5%N1
DC-10-10	CF6-6D	10°	98%N1	10°	95.5%N1
DC-10-40	JT9D-20	15°	90%N1	15°	87.5%N1
B-707-120B	JT3D-3	30°	1.74	30°	1.61
B-707-320B	JT3D-3B	14°	1.82	14°	1.69
DC-8-55/61	JT3D-3B	25°	1.85	15°	1.60
DC-8-63	JT3D-7	25°	1.85	12°	1.60
B-747-100D	JT9D-7W	10°	1.47	10°	1.30
B-747-200B	JT9D-7W	10°	1.47	10°	1.30



### 3.2.2 Extrapolation Techniques

The following two aerodynamic equations were found to be useful:

$$\tan \gamma = \frac{T}{W} - \frac{D}{L} \quad (A)$$

$$\sin \gamma = \frac{T - D}{W} \quad (B)$$

Both are for constant indicated airspeed.

T = thrust, W = weight, D = drag, L = lift (all in lbs);

Y = climb angle. The climb gradient G is defined by

$G = \tan \gamma$ ;  $G \sim \sin \gamma$  also, for the small angles of interest.

If the ratio D/L is constant, then (A) can be rewritten as

$$G_2 - G_1 = T \left( \frac{1}{W_2} - \frac{1}{W_1} \right) \quad (A')$$

If D alone is constant, then (B) can be rewritten as

$$G_2 - G_1 = \left( \frac{W_1}{W_2} - 1 \right) G_1 \quad (B')$$

Comparison with cutback segment data shows that (A') is an excellent predictor for this segment. For the climbout segment, however, the actual gradients (where available) were about midway between the values predicted by (A') and (B'). Where climbout gradients had to be extrapolated, therefore, both (A') and (B') were used, and the results averaged.

For the acceleration segment, a portion of the thrust provides the acceleration (according to  $F = ma = W \frac{a}{g}$ ), and only the remaining thrust is available to overcome drag and to provide climb. Equations (A) and (B) must therefore be modified by replacing T with  $T - W \frac{a}{g}$ . The resulting expressions were found to be very poor predictors of the acceleration segment data available, presumably because flap retraction schedules and speed variations cause the drag to vary widely during the acceleration. The Wyle report was the only source of acceleration segment gradient data available.

For want of better techniques, the Wyle data was smoothed, and extrapolated by comparison with the climbout data.

APPENDIX A  
ACOUSTIC DATA

NOISE LEVEL - 1984

DISTANCE	NOISE LEVEL - 1984			
	100 FT	200 FT	300 FT	400 FT
1500	65.00	62.00	60.00	58.00
1400	65.00	62.00	60.00	58.00
1300	65.00	62.00	60.00	58.00
1200	65.00	62.00	60.00	58.00
1100	65.00	62.00	60.00	58.00
1000	65.00	62.00	60.00	58.00
900	65.00	62.00	60.00	58.00
800	65.00	62.00	60.00	58.00
700	65.00	62.00	60.00	58.00
600	65.00	62.00	60.00	58.00
500	65.00	62.00	60.00	58.00
400	65.00	62.00	60.00	58.00
300	65.00	62.00	60.00	58.00
200	65.00	62.00	60.00	58.00
100	65.00	62.00	60.00	58.00

NOISE LEVEL - 1984

DISTANCE	NOISE LEVEL - 1984			
	100 FT	200 FT	300 FT	400 FT
1500	65.00	62.00	60.00	58.00
1400	65.00	62.00	60.00	58.00
1300	65.00	62.00	60.00	58.00
1200	65.00	62.00	60.00	58.00
1100	65.00	62.00	60.00	58.00
1000	65.00	62.00	60.00	58.00
900	65.00	62.00	60.00	58.00
800	65.00	62.00	60.00	58.00
700	65.00	62.00	60.00	58.00
600	65.00	62.00	60.00	58.00
500	65.00	62.00	60.00	58.00
400	65.00	62.00	60.00	58.00
300	65.00	62.00	60.00	58.00
200	65.00	62.00	60.00	58.00
100	65.00	62.00	60.00	58.00

CCDE: 73727B  
 AIRCRAFT: B-737-200  
 ENGINE: JT8D-1/7 (BASELINE)  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, CBA

SLANT DISTANCE, FEET	PCWEF, FN/DELTA, LBS.				
	3980	5030	6130	9480	12190
200	102.80	103.80	104.70	108.50	115.50
317	98.30	99.00	100.00	104.20	111.20
502	92.70	93.90	95.00	99.60	106.90
796	87.00	86.80	89.30	94.90	102.10
1262	80.80	82.00	83.70	90.00	97.30
2000	74.10	75.60	78.20	85.00	92.20
3170	67.80	68.90	72.80	79.50	86.70
5024	61.00	62.90	67.00	73.40	80.70
7962	54.60	56.20	60.30	66.90	74.10
12619	48.00	49.00	53.30	60.20	66.80

CCDE: 73727Q  
 AIRCRAFT: B-737-200 QN  
 ENGINE: JT8D-1/7 QN  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, CBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.				
	4010	5060	6260	9760	11880
200	98.10	98.50	101.20	108.10	114.40
317	93.30	93.60	97.10	103.90	110.30
502	87.70	88.70	92.80	99.40	106.00
796	81.70	83.90	88.10	94.90	101.30
1262	76.30	79.00	83.30	90.00	96.50
2000	71.00	74.00	78.20	85.20	91.40
3170	65.50	68.60	72.80	79.80	85.80
5024	60.00	63.00	67.00	74.00	79.90
7962	53.30	56.10	60.30	67.30	73.00
12619	46.20	49.00	53.20	60.60	65.90



CODE: 737290  
 AIRCRAFT: B-737-200 QN  
 ENGINE: JT8D-9/-15  
 EGA CLASS: 2/3 ENGINE LCW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	PCWER, FN/DELTA, LBS.					
	4180	537C	6120	322G	12770	13480
200	97.80	100.40	101.00	106.40	116.60	118.40
400	89.80	93.00	94.20	99.80	110.20	112.00
600	85.00	88.00	90.20	95.60	106.20	107.80
1000	79.80	82.80	85.00	90.60	101.00	102.60
2000	72.40	75.60	77.80	83.20	93.40	94.80
4000	64.20	67.40	69.40	74.80	84.80	86.00
6000	59.20	62.00	64.00	69.40	79.20	80.40
10000	51.80	54.60	56.80	61.80	71.20	72.40

CODE: DC9378  
 AIRCRAFT: DC-9-30  
 ENGINE: JT8D-7  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.					
	4000	5000	6000	8000	10000	12000
200	102.20	103.00	104.00	106.70	110.00	114.30
317	97.30	98.00	99.30	102.00	106.10	109.80
502	92.30	93.40	94.70	97.50	101.10	105.30
796	86.80	88.20	89.80	92.80	96.40	100.70
1262	81.50	83.30	84.90	88.20	92.10	96.30
2000	75.60	77.80	79.50	83.30	87.30	91.60
3170	69.00	71.80	74.00	78.30	82.70	86.90
5024	62.00	65.50	68.00	73.20	77.90	82.10
7962	54.80	58.30	61.30	67.50	72.00	77.10

CODE: DC9370  
 AIRCRAFT: DC-9-30 (SAM)  
 ENGINE: JT8D-7 (SAM)  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.					
	4000	5000	6000	8000	10000	12000
200	96.60	97.10	100.40	104.90	109.00	114.30
317	92.20	92.80	96.20	100.40	105.20	109.80
502	87.70	88.90	92.00	96.10	100.30	105.30
796	82.70	84.50	87.60	91.60	95.70	100.70
1262	77.90	80.40	83.10	87.30	91.50	96.30
2000	72.40	75.50	78.20	82.60	86.70	91.60
3170	66.30	70.30	73.10	77.80	82.20	86.90
5024	59.80	64.70	7.60	73.00	77.50	82.10
7962	53.10	58.20	1.30	67.50	71.70	77.10

CODE: DC939B  
 AIRCRAFT: DC-9-30  
 ENGINE: JT8D-9  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.						
	2000	4000	5000	6000	8000	10000	12500
200	101.20	102.80	103.30	104.10	106.80	110.30	114.40
317	95.10	97.60	98.60	99.60	102.50	105.90	109.80
502	89.30	92.90	93.60	94.70	98.00	101.70	105.30
796	83.00	87.60	88.50	89.80	93.40	97.00	100.70
1262	77.20	82.50	83.60	85.00	89.00	92.70	96.20
2000	71.00	76.80	78.10	79.80	84.20	88.00	91.50
3170	64.70	70.70	72.30	74.50	79.30	83.20	86.80
5024	58.40	64.00	66.20	68.80	74.00	78.10	82.10
7962	52.00	57.00	59.30	62.30	68.10	72.60	77.10

CODE: DC939Q  
 AIRCRAFT: DC-9-30 (SAM)  
 ENGINE: JT8D-9 (SAM)  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.					
	4000	5000	6000	8000	10000	12500
200	97.20	97.40	100.50	105.00	109.30	114.50
317	92.50	93.40	96.50	100.90	105.00	109.80
502	88.30	89.10	92.00	96.60	100.90	105.30
796	83.50	84.80	87.60	92.20	96.30	100.70
1262	78.90	80.60	83.20	88.10	92.10	96.20
2000	73.60	75.80	78.50	83.50	87.40	91.50
3170	68.00	70.80	73.60	78.80	82.70	86.80
5024	61.80	65.40	68.40	73.80	77.70	82.10
7962	55.30	59.20	62.30	68.10	72.30	77.10



CODE: BAC11B  
 AIRCRAFT: BAC-111  
 ENGINE: ROLLS ROYCE SPEY  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, PERCENT THRUST		
	40	85	100
200	103.00	114.50	120.50
300	99.00	110.50	116.50
500	93.00	105.00	112.00
1000	84.00	96.50	105.50
2000	74.00	87.50	97.50
3000	68.50	83.50	92.50
5000	61.00	77.00	85.50
10000	51.50	67.00	75.50

CODE: BAC11Q  
 AIRCRAFT: BAC-111 (RETROFIT)  
 ENGINE: ROLLS ROYCE SPEY  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, PERCENT THRUST		
	40	85	100
200	98.50	104.00	114.50
300	94.00	100.50	110.50
500	87.50	96.00	106.00
1000	79.00	89.00	99.00
2000	71.00	81.50	91.50
3000	66.00	76.50	86.50
5000	60.00	70.00	80.00
10000	50.00	60.00	69.50

CGDE: 72711B  
 AIRCRAFT: B-727-100  
 ENGINE: JT8D-1/7 (BASELINE)  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, CBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.					
	3930	5090	6150	8380	10420	11850
200	105.80	105.90	106.60	109.30	113.20	117.00
317	100.30	100.50	101.80	104.80	108.70	112.60
502	94.70	95.10	96.70	100.00	104.20	107.80
796	88.70	89.20	91.00	95.20	99.30	103.20
1262	82.60	83.30	85.30	90.10	94.60	98.40
2000	76.40	77.70	79.80	85.00	89.70	93.30
3170	70.30	72.30	74.60	79.80	84.50	88.00
5024	63.70	66.30	68.50	73.20	78.80	81.90
7962	57.30	60.00	61.80	66.80	72.40	75.30
12619	50.00	53.00	54.80	59.60	65.50	68.00

CCDE: 72711Q  
 AIRCRAFT: B-727-100 QN  
 ENGINE: JT8D-1/7 QN  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, CBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.					
	3930	5090	6150	8380	10420	11850
200	98.40	100.20	102.40	107.50	111.70	115.80
317	93.80	95.70	98.30	103.40	107.60	111.60
502	89.00	91.00	93.70	99.00	103.20	107.10
796	83.90	86.30	89.00	94.40	98.70	102.70
1262	79.00	81.70	84.40	89.80	94.10	98.00
2000	73.80	76.70	79.30	84.50	89.20	92.90
3170	68.60	71.60	74.20	79.00	84.20	87.60
5024	62.70	66.00	68.10	73.00	78.70	81.70
7962	61.20	59.60	61.80	66.30	72.20	75.00
12619	49.50	53.00	54.80	59.50	65.60	68.00

CODE: 72725B  
 AIRCRAFT: B-727-200  
 ENGINE: JT8D-9/15 (BASELINE)  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.						
	3500	4300	5200	7600	9800	12250	13050
200	104.80	105.10	105.80	108.10	112.30	116.90	118.80
317	99.90	100.30	101.00	103.70	108.00	112.80	114.50
502	94.50	95.00	96.00	98.80	103.50	108.30	110.50
796	88.70	89.40	90.20	93.70	98.90	104.00	106.00
1262	82.50	83.60	84.70	88.50	94.00	99.50	101.20
2000	76.10	77.50	78.70	83.30	88.90	94.70	96.30
3170	70.00	71.40	72.90	77.80	83.20	89.30	91.00
5024	64.00	65.20	67.00	72.00	77.10	84.00	85.60
7962	57.50	58.90	60.50	65.40	70.70	77.90	79.20
12619	50.80	52.40	54.00	58.60	64.20	71.00	72.50

CODE: 72725Q  
 AIRCRAFT: B-727-200 QN  
 ENGINE: JT8D-9/15 QN  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.						
	3800	4900	5900	8200	10000	11900	12800
200	97.50	99.50	100.80	106.50	110.30	114.90	117.10
317	93.00	95.30	96.70	102.20	106.20	110.80	113.00
502	88.70	91.00	92.30	97.80	101.90	106.60	108.70
796	84.90	86.20	87.90	93.00	97.40	102.20	104.50
1262	78.90	81.60	83.00	88.10	93.00	97.90	99.80
2000	73.70	76.30	77.80	82.90	88.00	93.00	95.10
3170	68.20	70.60	72.00	77.40	82.50	87.80	90.30
5024	62.70	64.20	66.10	71.80	76.40	82.30	84.90
7962	56.20	58.00	59.80	65.30	70.00	76.00	78.80
12619	49.70	51.10	53.20	58.30	64.00	69.00	71.70



CODE: D1016D  
 AIRCRAFT: DC-10-10  
 ENGINE: CF6-6D  
 EGA CLASS: HIGH BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, N1/SQRT(THETA), RPMS				
	2200	2400	2600	3000	3420
200	101.00	102.80	103.50	105.90	108.00
317	95.80	97.10	98.30	100.70	102.90
502	90.50	91.60	92.90	95.70	97.80
796	84.50	85.70	87.20	90.20	92.60
1262	77.90	79.30	81.20	84.60	87.20
2000	70.10	72.40	74.70	78.50	81.80
3170	60.30	64.50	67.00	71.60	75.80

CODE: D10492  
 AIRCRAFT: DC-10-40  
 ENGINE: JT9D-20  
 EGA CLASS: HIGH BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, N1/SQRT(THETA), RPMS					
	2200	2400	2600	3000	3410	3600
200	97.00	100.00	101.00	104.00	106.00	107.00
317	93.00	96.00	97.00	99.70	101.70	102.70
502	89.00	92.00	93.00	95.50	98.00	99.00
796	84.00	87.50	89.00	91.00	93.50	94.50
1262	80.00	83.00	85.00	87.00	89.50	90.80
2000	75.00	78.50	80.00	82.50	85.00	86.20
3170	70.00	73.50	75.00	78.00	81.00	82.50
5024	66.00	68.00	70.00	73.00	76.00	77.50

CCDE: L11122  
 AIRCRAFT: L-1011  
 ENGINE: RB-211  
 EGA CLASS: HIGH BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	FCWER, N1/SQRT(THETA), %					
	55.00	60.00	67.40	75.00	85.00	95.00
200	96.20	97.80	100.10	102.30	105.00	108.50
317	92.00	93.20	95.60	97.80	100.70	104.40
502	87.20	88.40	90.80	93.20	96.30	99.80
796	82.40	83.50	85.70	88.30	91.20	95.00
1262	77.20	78.20	80.30	82.80	86.30	90.30
2000	71.80	72.80	75.00	77.30	81.00	85.00
3170	65.80	66.80	69.00	71.40	75.30	79.20
5024	59.00	60.20	62.60	64.70	69.00	73.00
7962	52.60	53.80	56.20	59.70	62.70	66.80
12619	45.00	46.80	49.30	51.80	56.00	59.80

CODE: 70733B  
 AIRCRAFT: B-707-120B/32CB  
 ENGINE: JT3D-3B (BASELINE)  
 EGA CLASS: 4 ENGINE LOW BYPASS

NOISE LEVEL, CBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.				
	3630	5880	8830	11990	15250
200	110.50	113.50	115.00	116.00	118.50
317	106.00	109.00	110.50	111.40	114.00
502	101.00	103.80	105.30	106.00	108.70
796	95.60	98.20	99.80	100.70	103.20
1262	89.20	92.00	93.20	94.00	97.00
2000	82.10	84.70	86.20	87.50	91.70
3170	73.00	75.70	78.60	80.20	83.70
5024	63.00	66.20	70.50	73.00	76.00
7962	52.70	58.40	62.80	66.20	70.50
12619	46.30	52.00	56.00	59.70	64.00

CODE: 70733Q  
 AIRCRAFT: B-707-120B/320 6A  
 ENGINE: JT3D-3B QN  
 EGA CLASS: 4 ENGINE LOW BYPASS

NOISE LEVEL, CBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.					
	3490	6130	8670	11830	13390	15250
200	96.40	100.20	104.00	107.40	111.50	118.50
317	91.40	95.60	99.20	103.00	106.80	114.00
502	86.00	90.70	94.30	98.70	102.30	108.70
796	80.70	86.00	89.70	94.00	97.80	103.20
1262	75.20	81.00	84.70	89.20	94.20	97.00
2000	69.70	75.80	79.20	84.10	88.20	91.70
3170	63.70	70.00	73.70	78.80	82.70	83.70
5024	57.50	64.00	67.70	72.80	76.20	76.00
7962	51.00	57.50	61.00	65.80	69.40	70.50
12619	44.50	50.50	54.50	58.50	62.50	64.00



CODE: DC830B  
 AIRCRAFT: DC-8-30<sup>M</sup>  
 ENGINE:  
 EGA CLASS: 4 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, POWER		
	1	2	3
200	112.80	116.00	118.00
316	107.90	111.70	113.70
502	103.00	107.10	109.10
796	97.50	102.70	104.70
1262	91.80	98.30	100.30
2000	85.30	93.80	95.80
3160	77.60	89.20	91.20
5020	68.00	84.70	86.70
7960	57.00	79.60	81.80

CODE: DC813B  
 AIRCRAFT: DC-8-55/61  
 ENGINE: JT3D-3B  
 EGA CLASS: 4 ENGINE LOW BYPASS

NOISE LEVEL, CBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.			
	3000	6000	10000	15000
400	99.00	104.50	107.50	110.50
1000	86.00	92.00	96.00	100.00
2000	76.00	82.00	86.50	92.00
4000	62.00	69.50	75.50	82.00
8000	48.00	57.00	63.50	72.00

\* Also used for CV-880.

CODE: DC8130  
 AIRCRAFT: DC-8-55/61 (SAM)  
 ENGINE: JT3D-3B (SAM)  
 EGA CLASS: 4 ENGINE LOW 2YPASS

NOISE LEVEL, CBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.			
	3000	6000	10000	15000
400	83.40	91.30	98.00	110.50
1000	73.60	81.90	89.30	100.00
2000	66.60	73.70	81.80	92.00
4000	54.80	64.10	72.80	82.00
8000	46.70	55.50	62.80	72.00

CODE: DC837B  
 AIRCRAFT: DC-8-63  
 ENGINE: JT3D-7  
 EGA CLASS: 4 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.						
	4000	5000	6000	8000	10000	12000	15800
200	109.90	110.90	111.40	112.80	115.00	116.00	116.00
317	104.80	106.00	108.00	107.90	109.80	110.90	111.70
502	99.60	100.60	101.50	103.00	104.50	105.90	107.10
796	93.70	95.00	95.90	97.50	98.90	100.40	102.70
1262	87.30	89.10	90.00	91.80	93.40	95.30	98.30
2000	79.80	81.90	83.20	85.30	87.20	89.60	93.80
3170	70.50	73.10	74.80	77.60	80.70	83.70	89.20
5024	59.70	62.60	64.90	68.00	73.60	77.20	84.70
7962	48.00	51.20	53.00	57.00	65.00	69.90	79.80

CODE: DC837Q  
 AIRCRAFT: DC-8-63  
 ENGINE: JT3D-7 (ACOUSTIC MCC)  
 EGA CLASS: 4 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, FN/DELTA, LBS.						
	4000	5000	6000	8000	10000	12000	15800
200	92.60	94.30	95.90	99.40	103.50	107.40	116.00
317	89.20	91.00	94.10	95.80	99.70	103.40	111.70
502	85.60	87.20	89.10	92.30	95.70	99.40	107.10
796	81.40	83.20	85.10	88.20	91.50	95.00	102.70
1262	76.60	79.00	80.70	83.80	87.40	90.90	98.30
2000	70.80	73.40	75.50	78.70	82.50	86.30	93.80
3170	63.10	66.20	68.60	72.40	77.40	81.40	89.20
5024	54.00	57.30	60.30	64.10	71.60	76.00	84.70
7962	44.00	47.60	48.10	54.50	64.40	69.70	79.80

CODE: 74713B  
 AIRCRAFT: B-747-100  
 ENGINE: JT9D-3A BLOW IN DOOR  
 EGA CLASS: HIGH BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	PCWER, N1/SQRT(TH), RPM					
	1990	2115	2330	2550	2875	3310
200	104.70	106.50	109.50	112.00	114.70	117.00
400	98.00	99.50	102.80	104.80	108.00	110.00
500	93.40	95.00	98.40	100.30	103.70	105.70
1000	87.50	88.90	92.30	94.00	97.50	99.70
2000	78.20	79.70	82.80	84.50	88.00	90.80
4000	67.70	69.30	71.80	73.70	77.50	81.20
6000	61.30	62.80	65.00	67.20	70.80	75.50
10000	53.20	54.20	56.00	58.40	62.20	67.50

CODE: 74717B  
 AIRCRAFT: B-747-100  
 ENGINE: JT9D-7 (FIXED LIP)  
 EGA CLASS: HIGH BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	PCWER, N1/SQRT(THETA), RPM					
	1996	2346	2557	2923	3204	3355
200	103.10	104.20	105.30	108.90	112.20	114.30
317	98.30	99.60	100.70	104.50	107.80	109.80
502	93.50	94.80	95.90	99.70	103.10	105.20
796	88.20	89.70	90.40	94.60	98.10	100.20
1262	82.70	84.30	85.20	89.30	93.00	95.10
2000	76.80	78.20	79.10	83.60	87.30	89.60
3170	70.70	72.20	73.00	77.80	81.80	83.90
5024	64.00	65.90	66.50	71.60	75.50	77.50
7962	56.80	58.70	59.70	64.80	68.60	70.50
12619	49.00	51.00	52.60	57.60	61.40	63.50



CCDE: 74727B  
 AIRCRAFT: B-747-200B  
 ENGINE: JT9D-7 (FIXED LIP)  
 EGA CLASS: HIGH BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, N1/SQRT(THETA), RPM					
	1996	2346	2552	2923	3204	3355
200	101.00	102.70	104.10	108.20	110.90	112.80
317	96.60	98.30	99.90	103.70	106.60	108.30
502	91.30	93.40	94.90	99.80	101.80	103.50
796	86.20	88.20	89.60	93.70	95.80	98.50
1262	80.90	82.90	84.00	89.40	91.50	93.50
2000	75.00	77.00	78.00	82.60	86.00	88.00
3170	69.00	71.00	71.90	76.60	80.30	82.20
5024	62.50	64.60	65.70	70.30	74.10	76.00
7962	55.30	57.50	58.80	63.80	67.40	69.30
12619	48.00	50.30	52.00	57.20	60.80	62.60

CODE: CV580  
 AIRCRAFT: CV-580  
 ENGINE:  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, POWER	
	1	2
200	85.00	94.90
470	75.10	85.00

CCDE: GAJET1  
 AIRCRAFT:  
 ENGINE:  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, PERCENT THRUST	
	40	100
200	104.50	118.50
300	100.50	114.50
500	95.50	109.50
1000	88.50	101.50
2000	80.00	93.50
3000	75.50	87.00
5000	69.00	80.00
10000	58.00	68.00

CODE: GAJET2  
 AIRCRAFT: GULFSTREAM II  
 ENGINE: RR SPEY  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, POWER, PERCENT THRUST FEET	40	100
200	96.50	117.50
300	92.50	113.50
500	87.50	109.00
1000	81.00	102.00
2000	73.50	95.00
3000	68.00	90.00
5000	62.00	84.00
10000	52.00	74.50

CODE: GAJET3  
 AIRCRAFT: CESSNA CITATION  
 ENGINE: JT15D  
 EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, POWER, PERCENT THRUST FEET	40	100
200	82.50	93.00
300	78.50	88.50
500	73.50	84.00
1000	66.50	77.00
2000	59.00	69.50
3000	53.50	64.00
5000	48.00	58.00
10000	38.00	48.00

CCDE: GAPRP1  
AIRCRAFT:  
ENGINE: SINGLE PROP  
EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, LBS.	
	40	100
200	74.50	85.50
300	70.00	81.50
500	65.50	77.00
1000	59.00	70.50
2000	51.50	64.00
3000	47.00	59.00
5000	41.50	54.00
10000	33.00	45.50

CCDE: GAPRP2  
AIRCRAFT:  
ENGINE: TWIN PROP  
EGA CLASS: 2/3 ENGINE LOW BYPASS

NOISE LEVEL, DBA

SLANT DISTANCE, FEET	POWER, LBS.	
	40	100
200	81.50	93.00
300	77.00	89.00
500	72.50	84.50
1000	66.00	78.00
2000	58.50	71.50
3000	54.00	66.50
5000	48.50	61.50
10000	40.00	53.00



APPENDIX B

PROFILES

Profile ID	Point	Profile	Point	Profile	Point
CRAD-202	100	1000	100	1000	1000
	101	1000	101	1000	1000
	102	1000	102	1000	1000
CRAD-110	100	1000	100	1000	1000
	101	1000	101	1000	1000
	102	1000	102	1000	1000
CRAD-112	100	1000	100	1000	1000
	101	1000	101	1000	1000
	102	1000	102	1000	1000
CRAD-113	100	1000	100	1000	1000
	101	1000	101	1000	1000
	102	1000	102	1000	1000
CRAD-114	100	1000	100	1000	1000
	101	1000	101	1000	1000
	102	1000	102	1000	1000
CRAD-115	100	1000	100	1000	1000
	101	1000	101	1000	1000
	102	1000	102	1000	1000
CRAD-116	100	1000	100	1000	1000
	101	1000	101	1000	1000
	102	1000	102	1000	1000
CRAD-117	100	1000	100	1000	1000
	101	1000	101	1000	1000
	102	1000	102	1000	1000
CRAD-118	100	1000	100	1000	1000
	101	1000	101	1000	1000
	102	1000	102	1000	1000
CRAD-119	100	1000	100	1000	1000
	101	1000	101	1000	1000
	102	1000	102	1000	1000
CRAD-120	100	1000	100	1000	1000
	101	1000	101	1000	1000
	102	1000	102	1000	1000

PROFILE B200,73727B,T  
 AIRCRAFT B-737-200  
 PROCDDES 80K LBS., ATA T/C  
 PCINT 0 C 11900 0  
 PCINT 3200 C 11900 139  
 POINT 10500 1500 11900 139 GRAD=.205  
 PCINT 11500 1678 11000 139  
 PCINT 18900 3000 11000 139 GRAD=.179  
 PCINT 58600 7129 11000 250 GRAD=.104  
 PCINT 125000 16757 11000 250 GRAD=.145

\*

PROFILE B201,73727B,T  
 AIRCRAFT B-737-200  
 PROCDDES 90K LBS., ATA T/C  
 PCINT 0 C 11900 0  
 PCINT 4150 C 11900 147  
 POINT 13000 1500 11900 147 GRAD=.169  
 PCINT 14000 1651 11000 147  
 POINT 22950 3000 11000 147 GRAD=.151  
 PCINT 60100 6046 11000 250 GRAD=.082  
 POINT 125000 14029 11000 250 GRAD=.123

\*

PROFILE B202,73727B,T  
 AIRCRAFT B-737-200  
 PROCDDES 100K LBS., ATA T/C  
 PCINT 0 C 11900 0  
 POINT 5300 C 11900 156  
 PCINT 15700 1500 11900 156 GRAD=.144  
 POINT 16700 1620 11000 156  
 PCINT 27250 3000 11000 156 GRAD=.130  
 POINT 61650 5236 11000 250 GRAD=.065  
 PCINT 125000 11952 11000 250 GRAD=.106

\*

PROFILE B203,73727B,T  
 AIRCRAFT B-737-200  
 PROCDDES 109K LBS., ATA T/C  
 POINT 0 C 11900 0  
 PCINT 6550 0 11900 163  
 POINT 18600 1500 11900 163 GRAD=.124  
 PCINT 19600 1615 11000 163  
 POINT 31650 3000 11000 163 GRAD=.115  
 PCINT 63850 4686 11000 250 GRAD=.052  
 POINT 125000 10372 11000 250 GRAD=.093

\*

PROFILE B204,73727B,L  
 AIRCRAFT B-737-200  
 PROCDDES MAX FLAPS APPROACH  
 POINT 0 C 5300 138  
 PCINT 100000 5220 6360 138 GRAD=.052

\*

PROFILE B256,73727Q,T  
 AIRCRAFT B-737-200 QN  
 PROCDDES 80K LBS., ATA T/C  
 PCINT 0 0 11900 0  
 POINT 3200 C 11900 139  
 PCINT 10500 1500 11900 139 GRAD=.205  
 POINT 11500 1678 11000 139  
 PCINT 18900 3000 11000 139 GRAD=.179  
 POINT 58600 7129 11000 250 GRAD=.104  
 PCINT 125000 16757 11000 250 GRAD=.145

\*

PROFILE B297,73727Q,T  
 AIRCRAFT B-737-200 QN  
 PROCDDES 90K LBS., ATA T/C  
 POINT 0 C 11900 0  
 PCINT 4150 C 11900 147  
 POINT 13000 1500 11900 147 GRAD=.169  
 PCINT 14000 1651 11000 147  
 POINT 22950 3000 11000 147 GRAD=.151  
 PCINT 60100 6046 11000 250 GRAD=.082  
 POINT 125000 14029 11000 250 GRAD=.123

\*

PROFILE B298,73727Q,T  
 AIRCRAFT B-737-200 QN  
 PROCDDES 100K LBS., ATA T/C  
 PCINT 0 0 11900 0  
 POINT 5300 C 11900 156  
 PCINT 15700 1500 11900 156 GRAD=.144  
 POINT 16700 1620 11000 156  
 PCINT 27250 3000 11000 156 GRAD=.130  
 POINT 61650 5236 11000 250 GRAD=.065  
 PCINT 125000 11952 11000 250 GRAD=.106

\*

PROFILE B299,73727Q,T  
 AIRCRAFT B-737-200 QN  
 PROCDDES 109K LBS., ATA T/C  
 PCINT 0 C 11900 0  
 PCINT 6550 0 11900 163  
 POINT 18600 1500 11900 163 GRAD=.124  
 PCINT 19600 1615 11000 163  
 POINT 31650 3000 11000 163 GRAD=.115  
 PCINT 63850 4686 11000 250 GRAD=.052  
 POINT 125000 10372 11000 250 GRAD=.093

\*

PROFILE B300,73727Q,L  
 AIRCRAFT B-737-200 QN  
 PROCDDES MAX FLAPS APPROACH  
 PCINT 0 C 5300 138  
 POINT 100000 5220 6360 138 GRAD=.052

\*

PROFILE B205,DC937B-T  
 AIRCRAFT DC-9-10  
 PROCDES 70K LBS., ATA T/C  
 PCINT 0 C 12000 0  
 POINT 2500 C 12000 136  
 PCINT 8200 1500 12000 136 GRAD=.263  
 POINT 9200 1682 11200 136  
 POINT 16450 3000 11200 136 GRAD=.182  
 PCINT 57400 8610 11200 250 GRAD=.137  
 PCINT 125000 20778 11200 250 GRAD=.180

\*  
 PROFILE B206,DC937B,T  
 AIRCRAFT CC-9-10  
 PROCDES 80K LBS., ATA T/C  
 PCINT 0 C 12000 0  
 PCINT 3000 C 12000 145  
 PCINT 10250 1500 12000 145 GRAD=.207  
 PCINT 11250 1648 11100 145  
 PCINT 20400 3000 11100 145 GRAD=.148  
 PCINT 58550 7387 11100 250 GRAD=.115  
 PCINT 125000 17826 11100 250 GRAD=.157

\*  
 PROFILE B207,DC937B,T  
 AIRCRAFT CC-9-10  
 PROCDES 90.8K LBS., ATA T/C  
 PCINT 0 C 12000 0  
 POINT 3800 C 12000 153  
 PCINT 13400 1500 12000 153 GRAD=.156  
 POINT 14400 1619 11000 153  
 PCINT 26000 3000 11000 153 GRAD=.119  
 POINT 61600 6306 11000 250 GRAD=.093  
 POINT 125000 14834 11000 250 GRAD=.135

\*  
 PROFILE B208,DC937B,L  
 AIRCRAFT CC-9-10  
 PROCDES MAX FLAPS APPROACH  
 PCINT 0 C 4320 127  
 PCINT 100000 5240 5180 127 GRAD=.052



PROFILE B301,DC937Q,T  
 AIRCRAFT DC-9-10 (SAM)  
 PROCDES 70K LBS., ATA T/C  
 POINT 0 C 12000 0  
 PCINT 2500 C 12000 136  
 POINT 8200 1500 12000 136 GRAD=.263  
 PCINT 9200 1682 11200 136  
 POINT 16450 3000 11200 136 GRAD=.182  
 PCINT 57400 8610 11200 250 GRAD=.137  
 POINT 125000 20770 11200 250 GRAD=.180

\*  
 PROFILE B302,DC937Q,T  
 AIRCRAFT DC-9-10 (SAM)  
 PROCDES 80K LBS., ATA T/C  
 POINT 0 C 12000 0  
 POINT 3000 C 12000 145  
 PCINT 10250 1500 12000 145 GRAD=.207  
 POINT 11250 1648 11100 145  
 PCINT 20400 3000 11100 145 GRAD=.148  
 POINT 58550 7387 11100 250 GRAD=.115  
 PCINT 125000 17826 11100 250 GRAD=.157

\*  
 PROFILE B303,DC937Q,T  
 AIRCRAFT CC-9-10 (SAM)  
 PROCDES 90.8K LBS., ATA T/C  
 POINT 0 C 12000 0  
 PCINT 3800 C 12000 153  
 PCINT 13400 1500 12000 153 GRAD=.156  
 PCINT 14400 1619 11000 153  
 PCINT 26000 3000 11000 153 GRAD=.119  
 PCINT 61600 6306 11000 250 GRAD=.093  
 PCINT 125000 14834 11000 250 GRAD=.135

\*  
 PROFILE B304,DC937Q,L  
 AIRCRAFT DC-9-10 (SAM)  
 PROCDES MAX FLAPS APPROACH  
 POINT 0 C 4320 127  
 POINT 100000 5240 5180 127 GRAD=.052

\*

PROFILE B209,DC939B,T  
 AIRCRAFT DC-9-30  
 PROCDES 80K LBS., ATA T/C  
 POINT 0 C 12500 0  
 POINT 3500 C 12500 139  
 PCINT 9500 1500 12500 139 GRAD=.250  
 POINT 10500 1657 11100 139  
 PCINT 19050 3000 11100 139 GRAD=.157  
 POINT 58700 7480 11100 250 GRAD=.113  
 PCINT 125000 17823 11100 250 GRAD=.156

\*

PROFILE B210,DC939B,T  
 AIRCRAFT DC-9-30  
 PROCDES 90K LBS., ATA T/C  
 POINT 0 C 12500 0  
 PCINT 4200 0 12500 146  
 POINT 11850 1500 12500 146 GRAD=.196  
 PCINT 12850 1628 11100 146  
 POINT 23550 3000 11100 146 GRAD=.128  
 PCINT 60950 6403 11100 250 GRAD=.091  
 POINT 125000 15370 11100 250 GRAD=.140

\*

PROFILE B211,DC939B,T  
 AIRCRAFT DC-9-30  
 PROCDES 100K LBS., ATA T/C  
 PCINT 0 C 12500 0  
 POINT 4700 C 12500 152  
 PCINT 13450 1500 12500 152 GRAD=.171  
 POINT 14450 1607 11100 152  
 PCINT 27450 3000 11100 152 GRAD=.107  
 POINT 63050 5457 11100 250 GRAD=.069  
 PCINT 125000 12766 11100 250 GRAD=.118

\*

PROFILE B212,DC939B,T  
 AIRCRAFT DC-9-30  
 PROCDES 108K LBS., ATA T/C  
 PCINT 0 C 12500 0  
 PCINT 5500 0 12500 155  
 POINT 16800 1500 12500 155 GRAD=.133  
 PCINT 17800 1593 11100 155  
 POINT 32900 3000 11100 155 GRAD=.093  
 PCINT 67400 4932 11100 250 GRAD=.056  
 POINT 125000 11210 11100 250 GRAD=.109

\*

PROFILE B213,DC939B,L  
 AIRCRAFT DC-9-30  
 PROCDES MAX FLAPS APPROACH  
 PCINT 0 0 5300 139  
 POINT 100000 5220 6360 139 GRAD=.052

\*

PROFILE B305,DC939Q,T  
 AIRCRAFT DC-9-30 (SAM)  
 PROCDES 80K LBS., ATA T/C  
 PCINT 0 C 12500 0  
 POINT 3500 C 12500 139  
 POINT 9500 15CC 12500 139 GRAD=.250  
 POINT 10500 1657 11100 139  
 PCINT 19050 30CC 11100 139 GRAD=.157  
 POINT 58700 7480 11100 250 GRAD=.113  
 PCINT 125000 17823 11100 250 GRAD=.156

\*

PROFILE B306,DC939C,T  
 AIRCRAFT DC-9-30 (SAM)  
 PROCDES 90K LBS., ATA T/C  
 PCINT 0 C 12500 0  
 POINT 4200 C 12500 146  
 POINT 11850 15CC 12500 146 GRAD=.196  
 POINT 12850 1628 11100 146  
 POINT 23550 30CC 11100 146 GRAD=.128  
 PCINT 60950 6403 11100 250 GRAD=.091  
 POINT 125000 15370 11100 250 GRAD=.140

\*

PROFILE B307,DC939Q,T  
 AIRCRAFT DC-9-30 (SAM)  
 PROCDES 100K LBS., ATA T/C  
 PCINT 0 C 12500 0  
 POINT 4700 C 12500 152  
 POINT 13450 15CC 12500 152 GRAD=.171  
 POINT 14450 1607 11100 152  
 PCINT 27450 30CC 11100 152 GRAD=.107  
 POINT 63050 5457 11100 250 GRAD=.069  
 PCINT 125000 12766 11100 250 GRAD=.118

\*

PROFILE B308,DC939C,T  
 AIRCRAFT DC-9-30 (SAM)  
 PROCDES 108K LBS., ATA T/C  
 PCINT 0 C 12500 0  
 POINT 5500 C 12500 155  
 POINT 16800 15CC 12500 155 GRAD=.133  
 POINT 17800 1593 11100 155  
 PCINT 32900 30CC 11100 155 GRAD=.093  
 PCINT 67400 4932 11100 250 GRAD=.056  
 POINT 125000 11210 11100 250 GRAD=.109

\*

PROFILE B309,DC939Q,L  
 AIRCRAFT DC-9-30 (SAM)  
 PROCDES MAX FLAPS APPROACH  
 PCINT 0 0 5300 139  
 POINT 100000 5220 5360 139 GRAD=.052

PROFILE B119,BAC118,T  
 AIRCRAFT BAC 1-11  
 PROCDDES 75K LBS., ATA T/C  
 PCINT 0 C 100 0  
 POINT 5200 C 100 145  
 POINT 14700 1500 100 145 GRAD=.158  
 PCINT 15700 1625 85 145  
 POINT 26700 3000 85 145 GRAD=.125  
 PCINT 64300 6350 85 250 GRAD=.089  
 PCINT 125000 14720 85 250 GRAD=.138

\*  
 PROFILE B120,BAC118,T  
 AIRCRAFT BAC 1-11  
 PROCDDES 80K LBS., ATA T/C  
 PCINT 0 C 100 0  
 POINT 5800 C 100 150  
 POINT 15900 1500 100 150 GRAD=.149  
 POINT 16900 1619 85 150  
 POINT 28500 3000 85 150 GRAD=.119  
 POINT 64650 5930 85 250 GRAD=.081  
 POINT 125000 13840 85 250 GRAD=.131

\*  
 PROFILE B005,BAC118,T  
 AIRCRAFT BAC 1-11  
 PROCDDES 87K LBS., ATA T/C  
 PCINT 0 C 100 0  
 POINT 6700 C 100 156  
 POINT 17500 1500 100 156 GRAD=.139  
 PCINT 18500 1611 85 156  
 POINT 31000 3000 85 156 GRAD=.111  
 PCINT 65350 5404 85 250 GRAD=.070  
 POINT 125000 12682 85 250 GRAD=.122

\*  
 PROFILE B006,BAC118,L  
 AIRCRAFT BAC 1-11  
 PROCDDES MAX FLAPS APPROACH  
 PCINT 0 0 40 136  
 POINT 100000 5220 40 136 GRAD=.052



PROFILE	B123,BAC11Q,T				
AIRCRAFT	BAC 1-11 RETRCFIT				
PROCDER	75K LBS., ATA T/C				
PCINT	0	0	100	0	
PCINT	5200	0	100	145	
POINT	14700	1500	100	145	GRAD=.158
POINT	15700	1625	85	145	
POINT	26700	3000	85	145	GRAD=.125
POINT	64300	6350	85	250	GRAD=.089
POINT	125000	14720	85	250	GRAD=.138

\*

PROFILE	B122,BAC11C,T				
AIRCRAFT	BAC 1-11 RETROFIT				
PROCDER	80K LBS., ATA T/C				
PCINT	0	0	100	0	
PCINT	5800	0	100	150	
POINT	15900	1500	100	150	GRAD=.149
POINT	16900	1615	85	150	
POINT	28500	3000	85	150	GRAD=.119
POINT	64650	5930	85	250	GRAD=.081
POINT	125000	13840	85	250	GRAD=.131

\*

PROFILE	B121,BAC11Q,T				
AIRCRAFT	BAC 1-11 RETRCFIT				
PROCDER	87K LBS., ATA T/C				
POINT	0	0	100	0	
POINT	6700	0	100	156	
POINT	17500	1500	100	156	GRAD=.139
POINT	18500	1611	85	156	
POINT	31000	3000	85	156	GRAD=.111
POINT	65350	5404	85	250	GRAD=.070
POINT	125000	12682	85	250	GRAD=.122

\*

PROFILE	B124,BAC11Q,L				
AIRCRAFT	BAC 1-11 RETROFIT				
PROCDER	MAX FLAPS APPROACH				
POINT	0	0	40	136	
POINT	100000	5220	40	136	GPAD=.052

\*

PROFILE B237,72711B,T  
 AIRCRAFT B-727-100  
 PROCDSES 110K LBS., ATA T/C  
 POINT 0 C 11500 0  
 PCINT 3050 C 11500 134  
 PCINT 10350 1500 11500 134 GRAD=.205  
 PCINT 11350 1676 10850 134  
 POINT 18850 3000 10850 134 GRAD=.177  
 PCINT 59650 7490 10850 250 GRAD=.110  
 PCINT 125000 17620 10850 250 GRAD=.155

\*  
 PROFILE B238,72711B,T  
 AIRCRAFT B-727-100  
 PROCDSES 120K LBS., ATA T/C  
 PCINT 0 C 11500 0  
 PCINT 3600 C 11500 139  
 PCINT 11900 1500 11500 139 GRAD=.181  
 POINT 12900 1651 10850 139  
 PCINT 21850 3000 10850 139 GRAD=.151  
 POINT 61200 6660 10850 250 GRAD=.093  
 PCINT 125000 15446 10850 250 GRAD=.138

\*  
 PROFILE B239,72711B,T  
 AIRCRAFT B-727-100  
 PROCDSES 130K LBS., ATA T/C  
 PCINT 0 C 11500 0  
 POINT 4250 C 11500 143  
 POINT 13750 1500 11500 143 GRAD=.158  
 PCINT 14750 1633 10790 143  
 POINT 25050 3000 10790 143 GRAD=.133  
 PCINT 63350 6162 10790 250 GRAD=.083  
 POINT 125000 13808 10790 250 GRAD=.124

\*  
 PROFILE B240,72711B,T  
 AIRCRAFT B-727-100  
 PROCDSES 140K LBS., ATA T/C  
 PCINT 0 C 11500 0  
 POINT 4900 C 11500 147  
 POINT 15600 1500 11500 147 GRAD=.140  
 PCINT 16600 1617 10750 147  
 PCINT 28400 3000 10750 147 GRAD=.117  
 PCINT 65500 5600 10750 250 GRAD=.070  
 PCINT 125000 12260 10750 250 GRAD=.112

PROFILE B241,72711B,T  
 AIRCRAFT B-727-100  
 PROCDES 150K LBS., ATA T/C  
 POINT 0 0 11500 0  
 PCINT 5650 C 11500 151  
 POINT 17750 1500 11500 151 GRAD=.124  
 PCINT 18750 1601 10730 151  
 POINT 32550 3000 10730 151 GRAD=.101  
 POINT 68500 5160 10730 250 GRAD=.060  
 POINT 125000 10920 10730 250 GRAD=.102

\*

PROFILE B242,72711B,T  
 AIRCRAFT B-727-100  
 PROCDES 160K LBS., ATA T/C  
 POINT 0 C 11500 0  
 POINT 6450 C 11500 155  
 PCINT 20050 1500 11500 155 GRAD=.110  
 POINT 21050 1591 10700 155  
 PCINT 36550 3000 10700 155 GRAD=.091  
 PCINT 71250 4800 10700 250 GRAD=.052  
 PCINT 125000 9860 10700 250 GRAD=.094

\*

PROFILE B243,72711B,L  
 AIRCRAFT B-727-100  
 PROCDES MAX FLAPS APPROACH  
 POINT 0 C 4450 138  
 PCINT 100000 5220 5350 138 GRAD=.052

\*

PROFILE B318,72711C,T  
 AIRCRAFT B-727-100 QN  
 PROCDDES 110K LBS., ATA 1/C  
 PCINT 0 C 11500 0  
 PCINT 305C C 11500 134  
 PCINT 10350 150C 11500 134 GRAD=.205  
 PCINT 11350 1676 1C850 134  
 POINT 18850 300C 1C850 134 GRAD=.177  
 PCINT 5965C 749C 1C850 250 GRAD=.110  
 POINT 125000 17620 1C850 250 GRAD=.155

\*  
 PROFILE B319,72711Q,T  
 AIRCRAFT B-727-100 QN  
 PROCDDES 120K LBS., ATA 1/C  
 PCINT 0 C 11500 0  
 POINT 3600 C 11500 139  
 PCINT 11900 150C 11500 139 GRAD=.181  
 POINT 12900 1651 1C850 139  
 PCINT 21850 300C 1C850 139 GRAD=.151  
 POINT 61200 666C 1C850 250 GRAD=.093  
 PCINT 125000 15446 1C850 250 GRAD=.138

\*  
 PROFILE B320,72711C,T  
 AIRCRAFT B-727-100 QN  
 PROCDDES 130K LBS., ATA 1/C  
 PCINT 0 C 11500 0  
 PCINT 425C C 11500 143  
 POINT 13750 150C 11500 143 GRAD=.158  
 PCINT 14750 1633 1C790 143  
 POINT 25050 300C 1C790 143 GRAD=.133  
 PCINT 63350 6162 1C790 250 GRAD=.083  
 POINT 125000 13808 1C790 250 GRAD=.124

\*  
 PROFILE B321,72711Q,T  
 AIRCRAFT B-727-100 QN  
 PROCDDES 140K LBS., ATA 1/C  
 PCINT 0 C 11500 0  
 POINT 4900 C 11500 147  
 POINT 1560C 150C 11500 147 GRAD=.140  
 PCINT 16600 1617 1C750 147  
 PCINT 28400 300C 1C750 147 GRAD=.117  
 POINT 65500 560C 1C750 250 GRAD=.070  
 PCINT 125000 1226C 1C750 250 GRAD=.112



PROFILE 8322,72711C,T  
 AIRCRAFT B-727-100 QN  
 PROCDES 150K LBS., ATA T/C  
 POINT 0 C 11500 0  
 PCINT 5650 G 11500 151  
 POINT 17750 150C 11500 151 GRAD=.124  
 PCINT 18750 16C1 1C730 151  
 POINT 32550 300C 1C730 151 GRAD=.101  
 PCINT 68500 516C 1C730 250 GRAD=.060  
 POINT 125000 10920 1C730 250 GRAD=.102

\*  
 PROFILE 8323,72711Q,T  
 AIRCRAFT B-727-100 CN  
 PROCDES 160K LBS., ATA T/C  
 PCINT 0 C 11500 0  
 POINT 6450 C 11500 155  
 PCINT 20050 150C 11500 155 GRAD=.110  
 POINT 21050 1591 1C700 155  
 PCINT 36550 300C 1C700 155 GRAD=.091  
 POINT 71250 480C 1C700 250 GRAD=.052  
 PCINT 125000 986C 10700 250 GRAD=.094

\*  
 PROFILE 8324,72711C,L  
 AIRCRAFT B-727-100 QN  
 PROCDES MAX FLAPS APPROACH  
 PCINT 0 C 4450 138  
 POINT 100000 522C 5350 138 GRAD=.052

PROFILE B230,72725B,T  
 AIRCRAFT B-727-200  
 PROCDDES 13CK LBS., ATA 1/C  
 PCINT 0 C 12300 0  
 PCINT 4000 C 12300 145  
 PCINT 12500 15CC 12300 145 GRAD=.176  
 PCINT 13500 1639 10890 145  
 PCINT 23350 3000 10890 145 GRAD=.138  
 PCINT 61100 6107 10890 250 GRAD=.082  
 POINT 125000 14096 10890 250 GRAD=.125

\*  
 PROFILE B231,72725B,T  
 AIRCRAFT B-727-200  
 PROCDDES 140K LBS., ATA 1/C  
 PCINT 0 C 12300 0  
 POINT 4650 C 12300 149  
 POINT 14250 15CC 12300 149 GRAD=.156  
 POINT 15250 1620 10900 149  
 PCINT 26750 3000 10900 149 GRAD=.120  
 PCINT 63300 5560 10900 250 GRAD=.070  
 PCINT 125000 12780 10900 250 GRAD=.117

\*  
 PROFILE B232,72725B,T  
 AIRCRAFT B-727-200  
 PROCDDES 150K LBS., ATA 1/C  
 PCINT 0 C 12300 0  
 PCINT 5300 C 12300 153  
 POINT 16000 1500 12300 153 GRAD=.140  
 PCINT 17100 1604 10840 153  
 PCINT 30500 3000 10840 153 GRAD=.104  
 PCINT 65900 5120 10840 250 GRAD=.060  
 POINT 125000 11390 10840 250 GRAD=.106

\*  
 PROFILE B233,72725B,T  
 AIRCRAFT B-727-200  
 PROCDDES 160K LBS., ATA 1/C  
 PCINT 0 C 12300 0  
 PCINT 6100 C 12200 157  
 POINT 18100 1500 12200 157 GRAD=.125  
 PCINT 19100 1591 10800 157  
 POINT 34600 3000 10800 157 GRAD=.091  
 PCINT 68750 4780 10800 250 GRAD=.052  
 POINT 125000 10220 10800 250 GRAD=.097

PROFILE B234,72725B,T  
 AIRCRAFT B-727-200  
 PROCDSES 170K LBS., ATA T/C  
 POINT 0 C 12300 0  
 PCINT 6300 C 12300 152  
 POINT 21600 1500 12300 152 GRAD=.098  
 PCINT 22600 1580 10800 152  
 POINT 40350 3000 10800 152 GRAD=.080  
 POINT 75900 4600 10800 250 GRAD=.045  
 POINT 125000 8970 10800 250 GRAD=.089

\*  
 PROFILE B235,72725B,T  
 AIRCRAFT B-727-200  
 PROCDSES 184.8K LBS., ATA T/C  
 POINT 0 C 12300 0  
 PCINT 7600 C 12300 158  
 POINT 26300 1500 12300 158 GRAD=.080  
 PCINT 27300 1566 10800 158  
 POINT 49050 3000 10800 158 GRAD=.066  
 POINT 82850 4320 10800 250 GRAD=.039  
 PCINT 125000 7650 10800 250 GRAD=.079

\*  
 PROFILE B236,72725B,L  
 AIRCRAFT B-727-200  
 PROCDSES MAX FLAPS APPROACH  
 POINT 0 C 4600 145  
 POINT 100000 5220 5520 145 GRAD=.052

PROFILE 8311,727250,T  
 AIRCRAFT B-727-200 QN  
 PROCDDES 130K LBS., ATA 1/C  
 POINT 0 C 12300 0  
 PCINT 4000 C 12300 145  
 POINT 12500 1500 12300 145 GRAD=.176  
 PCINT 13500 1639 10890 145  
 POINT 23350 3000 10890 145 GRAD=.138  
 PCINT 61100 6107 10890 250 GRAD=.082  
 POINT 125000 14096 10890 250 GRAD=.125

\*  
 PROFILE 8312,727250,T  
 AIRCRAFT B-727-200 QN  
 PROCDDES 140K LBS., ATA 1/C  
 PCINT 0 C 12300 0  
 POINT 4650 C 12300 149  
 PCINT 14250 1500 12300 149 GRAD=.156  
 POINT 15250 1620 10900 149  
 PCINT 26750 3000 10900 149 GRAD=.120  
 POINT 63300 5560 10900 250 GRAD=.070  
 PCINT 125000 12780 10900 250 GRAD=.117

\*  
 PROFILE 8313,727250,T  
 AIRCRAFT B-727-200 QN  
 PROCDDES 150K LBS., ATA 1/C  
 POINT 0 C 12300 0  
 PCINT 5300 C 12300 153  
 POINT 16000 1500 12300 153 GRAD=.140  
 PCINT 17100 1604 10840 153  
 POINT 30500 3000 10840 153 GRAD=.104  
 PCINT 65900 5120 10840 250 GRAD=.060  
 POINT 125000 11390 10840 250 GRAD=.106

\*  
 PROFILE 8314,727250,T  
 AIRCRAFT B-727-200 QN  
 PROCDDES 160K LBS., ATA 1/C  
 POINT 0 C 12300 0  
 PCINT 6100 C 12300 157  
 POINT 18100 1500 12300 157 GRAD=.125  
 PCINT 19100 1591 10800 157  
 POINT 34600 3000 10800 157 GRAD=.091  
 PCINT 68750 4780 10800 250 GRAD=.052  
 POINT 125000 10230 10800 250 GRAD=.097



PROFILE 8315,72725C,T  
 AIRCRAFT B-727-200 QN  
 PROCDDES 170 LBS., ATA 1/C  
 PCINT 0 C 12300 0  
 PCINT 6300 C 12300 152  
 PCINT 21600 1500 12300 152 GRAD=.098  
 PCINT 22600 1580 10800 152  
 PCINT 40350 3000 10800 152 GRAD=.080  
 POINT 75900 4600 10800 250 GRAD=.045  
 POINT 125000 8970 10800 250 GRAD=.089

\*  
 PROFILE 8316,72725Q,T  
 AIRCRAFT B-727-200 QN  
 PROCDDES 184.8K LBS., ATA 1/C  
 PCINT 0 C 12300 0  
 PCINT 7600 C 12300 158  
 PCINT 26300 1500 12300 158 GRAD=.080  
 POINT 27300 1566 10800 158  
 POINT 49050 3000 10800 158 GRAD=.066  
 PCINT 82850 4320 10800 250 GRAD=.039  
 PCINT 125000 7650 10800 250 GRAD=.079

\*  
 PROFILE 8317,72725C,L  
 AIRCRAFT B-727-200 QN  
 PROCDDES MAX FLAPS APPROACH  
 PCINT 0 C 4600 145  
 PCINT 100000 5220 5520 145 GRAD=.052

PROFILE B222,D1C16D,T  
 AIRCRAFT CC-10-10  
 PROCDDES 320K LBS., ATA 1/C  
 PCINT 0 C 3360 0  
 PCINT 4000 C 3360 152  
 POINT 12500 1500 3360 152 GRAD=.176  
 PCINT 13500 1638 3280 152  
 POINT 23350 3000 3280 152 GRAD=.138  
 PCINT 59000 6066 3280 250 GRAD=.086  
 PCINT 125000 14448 3280 250 GRAD=.127

\*

PROFILE B223,D1C16D,T  
 AIRCRAFT CC-10-10  
 PROCDDES 340K LBS., ATA 1/O  
 PCINT 0 C 3360 0  
 PCINT 4500 C 3360 157  
 POINT 14000 1500 3360 157 GRAD=.158  
 PCINT 15000 1622 3280 157  
 POINT 26300 3000 3280 157 GRAD=.122  
 PCINT 60450 5527 3280 250 GRAD=.074  
 PCINT 125000 13079 3280 250 GRAD=.117

\*

PROFILE B224,D1C16D,T  
 AIRCRAFT CC-10-10  
 PROCDDES 360K LBS., ATA 1/C  
 PCINT 0 C 3360 0  
 PCINT 5000 C 3360 160  
 POINT 15500 1500 3360 160 GRAD=.143  
 PCINT 16500 1608 3280 160  
 POINT 29400 3000 3280 160 GRAD=.108  
 PCINT 62600 5125 3280 250 GRAD=.064  
 PCINT 125000 11799 3280 250 GRAD=.107

\*

PROFILE B225,D1C16D,T  
 AIRCRAFT DC-10-10  
 PROCDDES 380K LBS., ATA 1/C  
 PCINT 0 C 3360 0  
 POINT 5500 C 3360 164  
 POINT 17000 1500 3360 164 GRAD=.130  
 POINT 18000 1597 3280 164  
 PCINT 32450 3000 3280 164 GRAD=.097  
 POINT 64400 4661 3280 250 GRAD=.052  
 PCINT 125000 10600 3280 250 GRAD=.098

\*

PROFILE B226,D1016D,T  
 AIRCRAFT DC-10-10  
 PROCDDES 400K LBS., ATA T/C  
 POINT 0 C 3360 0  
 PCINT 6000 C 3360 168  
 POINT 19000 1500 3360 168 GRAD=.115  
 PCINT 20000 1587 3280 168  
 POINT 36250 3000 3280 168 GRAD=.087  
 PCINT 66900 4287 3280 250 GRAC=.042  
 POINT 125000 9574 3280 250 GRAD=.091

\*  
 PROFILE B227,D1016D,T  
 AIRCRAFT CC-10-10  
 PROCDDES 420K LBS., ATA T/C  
 PCINT 0 0 3360 0  
 POINT 6500 C 3360 171  
 PCINT 21000 1500 3360 171 GRAD=.103  
 POINT 22000 1578 3280 171  
 PCINT 40250 3000 3280 171 GRAD=.078  
 POINT 69850 3547 3280 250 GRAC=.032  
 PCINT 125000 8468 3280 250 GRAD=.082

\*  
 PROFILE B228,D1016D,T  
 AIRCRAFT DC-10-10  
 PROCDDES 440K LBS., ATA T/C  
 POINT 0 C 3360 0  
 PCINT 7000 C 3360 175  
 POINT 23500 1500 3360 175 GRAD=.091  
 PCINT 24500 1570 3280 175  
 POINT 44950 3000 3280 175 GRAD=.070  
 PCINT 73200 3622 3280 250 GRAC=.022  
 POINT 125000 7558 3280 250 GRAD=.076

\*  
 PROFILE B229,D1016D,L  
 AIRCRAFT DC-10-10  
 PROCDDES MAX FLAPS APPROACH  
 PCINT 0 C 2600 145  
 PCINT 100000 5220 2840 145 GRAD=.052

PROFILE 8357, D10492, T  
 AIRCRAFT CC-10-40  
 PROCDDES 360K LBS., ATA 1/0  
 POINT 0 0 3240 0  
 POINT 4500 C 3240 140  
 PCINT 13500 1500 3240 140 GRAD=.167  
 POINT 14500 1640 3150 140  
 PCINT 24200 3000 3150 140 GRAD=.140  
 POINT 46450 5000 3150 250 GRAD=.090  
 POINT 87550 10378 3150 250 GRAD=.130

\*

PROFILE 8358, D10492, T  
 AIRCRAFT DC-10-40  
 PROCDDES 400K LBS., ATA T/C  
 POINT 0 C 3240 0  
 PCINT 5500 0 3240 147  
 POINT 16000 1500 3240 147 GRAD=.143  
 PCINT 17000 1616 3150 147  
 POINT 28950 3000 3150 147 GRAD=.116  
 PCINT 65950 5667 3150 250 GRAD=.072  
 POINT 125000 12264 3150 250 GRAD=.112

\*

PROFILE 8359, D10492, T  
 AIRCRAFT CC-10-40  
 PROCDDES 440K LBS., ATA T/C  
 POINT 0 C 3240 0  
 POINT 6800 C 3240 154  
 PCINT 19000 1500 3240 154 GRAD=.123  
 POINT 20000 1554 3150 154  
 PCINT 34950 3000 3150 154 GRAD=.094  
 POINT 69800 4952 3150 250 GRAD=.056  
 POINT 125000 10185 3150 250 GRAD=.095

\*

PROFILE 8360, D10492, T  
 AIRCRAFT DC-10-40  
 PROCDDES 480K LBS., ATA T/C  
 POINT 0 C 3240 0  
 PCINT 8200 0 3240 161  
 POINT 22500 1500 3240 161 GRAD=.105  
 PCINT 23500 1578 3150 161  
 POINT 41750 3000 3150 161 GRAD=.078  
 PCINT 74450 4308 3150 250 GRAD=.040  
 POINT 125000 8451 3150 250 GRAD=.082

\*



PROFILE B361,D10492,T  
 AIRCRAFT CC-10-40  
 PROCDES 520K LBS., ATA T/C  
 POINT 0 C 3240 0  
 PCINT 9700 C 3240 175  
 POINT 26500 1500 3240 175 GRAD=.089  
 PCINT 27500 1563 3150 175  
 POINT 50300 3000 3150 175 GRAD=.063  
 PCINT 78600 3707 3150 250 GRAD=.025  
 PCINT 125000 6907 3150 250 GRAD=.069

\*  
 PROFILE B362,D10492,T  
 AIRCRAFT CC-10-40  
 PROCDES 540K LBS., ATA T/C  
 POINT 0 0 3240 0  
 PCINT 10500 0 3240 190  
 POINT 29000 1500 3240 190 GRAD=.081  
 PCINT 30000 1557 3150 190  
 POINT 55300 3000 3150 190 GRAD=.057  
 PCINT 78700 3444 3150 250 GRAD=.019  
 POINT 125000 6461 3150 250 GRAD=.065

\*  
 PROFILE B363,D10492,L  
 AIRCRAFT CC-10-40  
 PROCDES MAX FLAPS APPROACH  
 POINT 0 0 2430 160  
 POINT 100000 5220 2640 160 GRAD=.052

PROFILE B214,L11122,T  
 AIRCRAFT L-1011  
 PROCDDES 300K LBS., ATA T/O  
 POINT 0 C 93 0  
 PCINT 2950 C 93 151  
 POINT 10650 1500 93 151 GRAD=.195  
 POINT 11650 1655 90.5 151  
 POINT 20300 3000 90.5 151 GRAD=.155  
 PCINT 56350 6530 90.5 250 GRAD=.098  
 POINT 125000 15940 90.5 250 GRAD=.137

\*

PROFILE B215,L11122,T  
 AIRCRAFT L-1011  
 PROCDDES 320K LBS., ATA T/O  
 PCINT 0 C 93 0  
 POINT 3400 C 93 153  
 PCINT 12000 1500 93 153 GRAD=.174  
 POINT 13000 1638 90.5 153  
 PCINT 22900 3000 90.5 153 GRAD=.138  
 POINT 58300 6044 90.5 250 GRAD=.086  
 PCINT 125000 14515 90.5 250 GRAD=.127

\*

PROFILE B216,L11122,T  
 AIRCRAFT L-1011  
 PROCDDES 340K LBS., ATA T/O  
 PCINT 0 C 93 0  
 PCINT 3900 C 93 157  
 PCINT 13500 1500 93 157 GRAD=.156  
 PCINT 14500 1622 90.5 157  
 POINT 25800 3000 90.5 157 GRAD=.122  
 PCINT 59950 5527 90.5 250 GRAD=.074  
 PCINT 125000 13138 90.5 250 GRAD=.117

\*

PROFILE B217,L11122,T  
 AIRCRAFT L-1011  
 PROCDDES 360K LBS., ATA T/O  
 PCINT 0 C 93 0  
 PCINT 4400 C 93 160  
 PCINT 15100 1500 93 160 GRAD=.140  
 PCINT 16100 1608 90.5 160  
 PCINT 29000 3000 90.5 160 GRAD=.108  
 PCINT 62200 5125 90.5 250 GRAD=.064  
 PCINT 125000 11841 90.5 250 GRAD=.107

\*

PROFILE B218,L11122,T  
 AIRCRAFT L-1011  
 PROCDES 380K LBS., ATA 1/C  
 POINT 0 C 93 0  
 PCINT 5000 0 93 163  
 POINT 16850 1500 93 163 GRAD=.127  
 PCINT 17850 1597 90.5 163  
 POINT 32300 3000 90.5 163 GRAD=.097  
 PCINT 64550 4677 90.5 250 GRAD=.052  
 POINT 125000 10601 90.5 250 GRAD=.098

\*  
 PROFILE B219,L11122,T  
 AIRCRAFT L-1011  
 PROCDES 400K LBS., ATA 1/C  
 PCINT 0 C 93 0  
 POINT 5600 C 93 166  
 PCINT 18750 1500 93 166 GRAD=.114  
 POINT 19750 1587 90.5 166  
 PCINT 36000 3000 90.5 166 GRAD=.087  
 POINT 67250 4313 90.5 250 GRAD=.042  
 PCINT 125000 9568 90.5 250 GRAD=.091

\*  
 PROFILE B220,L11122,T  
 AIRCRAFT L-1011  
 PROCDES 430K LBS., ATA 1/C  
 POINT 0 C 93 0  
 PCINT 6650 C 93 170  
 POINT 21850 1500 93 170 GRAD=.099  
 PCINT 22850 1574 90.5 170  
 POINT 42100 3000 90.5 170 GRAD=.074  
 PCINT 71950 3776 90.5 250 GRAD=.026  
 POINT 125000 7970 90.5 250 GRAD=.079

\*  
 PROFILE B221,L11122,L  
 AIRCRAFT L-1011  
 PROCDES MAX FLAPS APPROACH  
 PCINT 0 C 66 138  
 POINT 100000 5220 71 138 GRAD=.052

\*  
 PROFILE 8244,70733B,T  
 AIRCRAFT B-707-120B  
 PROCDDES 160K LBS., ATA T/O  
 POINT 0 C 14000 0  
 PCINT 3400 C 14000 143  
 POINT 9800 1500 14000 143 GRAD=.234  
 PCINT 10800 1674 12110 143  
 POINT 18400 3000 12110 143 GRAD=.174  
 PCINT 57450 8078 12110 250 GRAD=.130  
 POINT 125000 19224 12110 250 GRAD=.165

\*  
 PROFILE 3245,70733B,T  
 AIRCRAFT B-707-120B  
 PROCDDES 180K LBS., ATA T/C  
 PCINT 0 0 13900 0  
 POINT 3450 C 13900 146  
 PCINT 11150 1500 13900 146 GRAD=.195  
 POINT 12150 1644 12080 146  
 PCINT 21600 3000 12080 146 GRAD=.143  
 POINT 59500 7220 12080 250 GRAD=.111  
 PCINT 125000 16587 12080 250 GRAD=.143

\*  
 PROFILE 8246,70733B,T  
 AIRCRAFT B-707-120B  
 PROCDDES 200K LBS., ATA T/O  
 POINT 0 C 13840 0  
 PCINT 4200 C 13840 152  
 POINT 13300 1500 13840 152 GRAD=.165  
 PCINT 14300 1618 12020 152  
 POINT 26000 3000 12020 152 GRAD=.118  
 PCINT 61850 6158 12020 250 GRAD=.088  
 POINT 125000 13989 12020 250 GRAD=.124

\*  
 PROFILE 8247,70733B,T  
 AIRCRAFT B-707-120B  
 PROCDDES 220K LBS., ATA T/C  
 POINT 0 C 13770 0  
 POINT 5100 C 13770 157  
 PCINT 15800 1500 13770 157 GRAD=.140  
 POINT 16800 1598 11980 157  
 PCINT 31150 3000 11980 157 GRAD=.098  
 POINT 65250 5259 11980 250 GRAD=.066  
 PCINT 125000 11772 11980 250 GRAD=.109



PROFILE B248,70733B,T  
 AIRCRAFT B-707-120B  
 PROCDES 240K LBS., ATA T/C  
 POINT 0 C 13700 0  
 PCINT 6200 0 13700 163  
 POINT 18800 1500 13700 163 GRAD=.119  
 PCINT 19800 1581 11930 163  
 POINT 37350 3000 11930 163 GRAD=.081  
 PCINT 69550 4614 11930 250 GRAD=.050  
 POINT 125000 9595 11930 250 GRAD=.097

\*  
 PROFILE B249,70733B,T  
 AIRCRAFT B-707-120B  
 PROCDES 258K LBS., ATA T/C  
 POINT 0 0 13630 0  
 POINT 7300 C 13630 168  
 PCINT 21600 1500 13630 168 GRAD=.105  
 POINT 22600 1568 11890 168  
 PCINT 43650 3000 11890 168 GRAD=.068  
 POINT 74300 4357 11890 250 GRAD=.044  
 PCINT 125000 8885 11890 250 GRAD=.089

\*  
 PROFILE B250,70733B,L  
 AIRCRAFT B-707-120B  
 PROCDES MAX FLAPS APPROACH  
 POINT 0 C 4600 138  
 PCINT 100000 5240 5500 138 GRAD=.05

PROFILE	B325,70733Q,T				
AIRCRAFT	B-707-120B CN				
PROCDDES	160K LBS., ATA 1/C				
POINT	0	C	14000	0	
PCINT	3400	0	14000	143	
POINT	9800	1500	14000	143	GRAD=.234
PCINT	10800	1674	12110	143	
POINT	18400	3000	12110	143	GRAD=.174
PCINT	57450	8078	12110	250	GRAD=.130
POINT	125000	19224	12110	250	GRAD=.165
	*				
PROFILE	B326,70733Q,T				
AIRCRAFT	B-707-120B CN				
PROCDDES	180K LBS., ATA 1/C				
PCINT	0	0	13900	0	
POINT	3450	C	13900	146	
PCINT	11150	1500	13900	146	GRAD=.195
POINT	12150	1644	12080	146	
PCINT	21600	3000	12080	146	GRAD=.143
POINT	59500	7220	12080	250	GRAD=.111
PCINT	125000	16587	12080	250	GRAD=.143
	*				
PROFILE	B327,70733Q,T				
AIRCRAFT	B-707-120B CN				
PROCDDES	200K LBS., ATA 1/C				
PCINT	0	C	13840	0	
POINT	4200	C	13840	152	
PCINT	13300	1500	13840	152	GRAD=.165
POINT	14300	1618	12020	152	
PCINT	26000	3000	12020	152	GRAD=.118
POINT	61850	6158	12020	250	GRAD=.088
PCINT	125000	13989	12020	250	GRAD=.124
	↓				
PROFILE	B328,70733Q,T				
AIRCRAFT	B-707-120B CN				
PROCDDES	220K LBS., ATA 1/C				
POINT	0	C	13770	0	
PCINT	5100	0	13770	157	
POINT	15800	1500	13770	157	GRAD=.140
PCINT	16800	1598	11980	157	
POINT	31150	3000	11980	157	GRAD=.098
PCINT	65250	5259	11980	250	GRAD=.066
POINT	125000	11772	11980	250	GRAD=.109
	*				

PROFILE 8329,70733Q,T  
 AIRCRAFT B-707-120B QN  
 PROCDSES 240K LBS., ATA T/C  
 POINT 0 C 13700 0  
 PCINT 6200 C 13700 163  
 POINT 18800 1500 13700 163 GRAD=.119  
 PCINT 19800 1581 11930 163  
 POINT 37350 3000 11930 163 GRAD=.081  
 POINT 69550 4614 11930 250 GRAD=.050  
 PCINT 125000 999 11530 250 GRAD=.097

\*  
 PROFILE 8330,70733Q,T  
 AIRCRAFT B-707-120B QN  
 PROCDSES 258K LBS., ATA T/C  
 PCINT 0 C 13630 0  
 POINT 7300 C 13630 168  
 POINT 21600 1500 13630 168 GRAD=.105  
 PCINT 22600 1568 11890 168  
 POINT 43650 3000 11890 168 GRAD=.068  
 POINT 74300 4357 11890 250 GRAD=.044  
 PCINT 125000 8885 11890 250 GRAD=.089

\*  
 PROFILE 8331,70733C,L  
 AIRCRAFT B-707-120B QN  
 PROCDSES MAX FLAPS APPROACH  
 PCINT 0 C 4600 138  
 PCINT 100000 5240 5500 138 GRAD=.052

\*  
 PROFILE 8332,70733C,L  
 AIRCRAFT B-707-120B QN  
 PROCDSES MAX FLAPS APPROACH  
 PCINT 0 C 4600 138  
 PCINT 100000 5240 5500 138 GRAD=.052

PROFILE B251,70733B,T  
 AIRCRAFT B-707-320B  
 PROCDDES 190K LBS., ATA T/C  
 POINT 0 C 15000 0  
 PCINT 5000 C 15000 140  
 POINT 11700 1500 15000 140 GRAD=.224  
 PCINT 12700 1671 13240 140  
 POINT 20500 3000 13240 140 GRAD=.170  
 PCINT 60200 7842 13240 250 GRAD=.122  
 POINT 125000 18406 13240 250 GRAD=.163

\*  
 PROFILE B252,70733B,T  
 AIRCRAFT B-707-320B  
 PROCDDES 210K LBS., ATA T/C  
 POINT 0 C 15000 0  
 PCINT 5000 C 15000 146  
 POINT 12900 1500 15000 146 GRAD=.190  
 PCINT 13900 1644 13100 146  
 POINT 23300 3000 13100 146 GRAD=.144  
 PCINT 61050 7115 13100 250 GRAD=.109  
 POINT 125000 16451 13100 250 GRAD=.146

\*  
 PROFILE B253,70733B,T  
 AIRCRAFT B-707-320B  
 PROCDDES 230K LBS., ATA T/C  
 POINT 0 0 14840 0  
 PCINT 5000 C 14840 152  
 POINT 14250 1500 14840 152 GRAD=.162  
 PCINT 15250 1622 13100 152  
 POINT 26400 3000 13100 152 GRAD=.123  
 PCINT 62250 6442 13100 250 GRAD=.096  
 POINT 125000 14662 13100 250 GRAD=.131

\*  
 PROFILE B254,70733B,T  
 AIRCRAFT B-707-320B  
 PROCDDES 250K LBS., ATA T/C  
 POINT 0 C 14770 0  
 PCINT 5100 C 14770 157  
 POINT 15800 1500 14770 157 GRAD=.140  
 PCINT 16800 1606 13060 157  
 POINT 29950 3000 13060 157 GRAD=.106  
 PCINT 64100 5834 13060 250 GRAD=.083  
 POINT 125000 13021 13060 250 GRAD=.118



PROFILE 8255,70733B,T  
 AIRCRAFT B-707-320B  
 PROCDDES 270K LBS., ATA 1/C  
 PCINT 0 C 14700 0  
 POINT 6050 C 14700 163  
 POINT 18250 1500 14700 163 GRAD=.123  
 POINT 19250 1593 13000 163  
 POINT 34200 3000 13000 163 GRAD=.094  
 POINT 66400 5254 13000 250 GRAD=.070  
 POINT 125000 11407 13000 250 GRAD=.105

\*

PROFILE 8256,70733B-T  
 AIRCRAFT B-707-32CB  
 PROCDDES 290K LBS., ATA 1/C  
 PCINT 0 C 14630 0  
 POINT 7050 C 14630 168  
 POINT 20950 1500 14630 168 GRAD=.108  
 POINT 21950 1581 12990 168  
 POINT 39500 3000 12990 168 GRAD=.081  
 POINT 70100 4744 12990 250 GRAD=.057  
 POINT 125000 9905 12990 250 GRAD=.094

\*

PROFILE 8257,70733B,T  
 AIRCRAFT B-707-320B  
 PROCDDES 310K LBS., ATA 1/C  
 PCINT 0 C 14560 0  
 POINT 8150 C 14560 173  
 POINT 23950 1500 14560 173 GRAD=.095  
 POINT 24950 1571 12950 173  
 POINT 45100 3000 12950 173 GRAD=.071  
 POINT 74100 4305 12950 250 GRAD=.045  
 POINT 125000 8835 12950 250 GRAD=.089

\*

PROFILE 8258,70733B,T  
 AIRCRAFT B-707-32CB  
 PROCDDES 333.6K LBS., ATA 1/O  
 PCINT 0 C 14480 0  
 POINT 9500 C 14480 179  
 POINT 28200 1500 14480 179 GRAD=.080  
 POINT 29200 1560 12910 179  
 POINT 53200 3000 12910 179 GRAD=.060  
 POINT 80300 3859 12910 250 GRAD=.032  
 POINT 125000 7350 12910 250 GRAD=.079

\*

PROFILE 8259,70733B,L  
 AIRCRAFT B-707-320B  
 PROCDDES MAX FLAPS APPROACH  
 PCINT 0 C 6250 147  
 POINT 100000 5220 7500 147 GRAD=.052

\*

PROFILE 8332,70733Q,T  
 AIRCRAFT B-707-320B CN  
 PROCDDES 190K LBS., ATA 1/D  
 PCINT 0 0 15000 0  
 PCINT 5000 C 15000 140  
 PCINT 11700 1500 15000 140 GRAD=.224  
 PCINT 12700 1671 13240 140  
 PCINT 20500 3000 13240 140 GRAD=.170  
 PCINT 60200 7843 13240 250 GRAD=.122  
 PCINT 125000 18406 13240 250 GRAD=.163

\*

PROFILE 8333,70733Q,T  
 AIRCRAFT B-707-320B QN  
 PROCDDES 210K LBS., ATA 1/C  
 PCINT 0 C 15000 0  
 PCINT 5000 C 15000 146  
 PCINT 12900 1500 15000 146 GRAD=.190  
 PCINT 13900 1644 13100 146  
 PCINT 23300 3000 13100 146 GRAD=.144  
 PCINT 61050 7115 13100 250 GRAD=.109  
 PCINT 125000 16451 13100 250 GRAD=.146

\*

PROFILE 8334,70733Q,T  
 AIRCRAFT B-707-320B CN  
 PROCDDES 230K LBS., ATA 1/C  
 PCINT 0 C 14840 0  
 PCINT 5000 C 14840 152  
 PCINT 14250 1500 14840 152 GRAD=.162  
 PCINT 15250 1623 13100 152  
 PCINT 26400 3000 13100 152 GRAD=.123  
 PCINT 62250 6442 13100 250 GRAD=.096  
 PCINT 125000 14662 13100 250 GRAD=.131

\*

PROFILE 8335,70733Q,T  
 AIRCRAFT B-707-320B QN  
 PROCDDES 250K LBS., ATA 1/C  
 PCINT 0 C 14770 0  
 PCINT 5100 C 14770 157  
 PCINT 15800 1500 14770 157 GRAD=.140  
 PCINT 16800 1606 13060 157  
 PCINT 29950 3000 13060 157 GRAD=.106  
 PCINT 64100 5834 13060 250 GRAD=.083  
 PCINT 125000 13021 13060 250 GRAD=.118

\*

PROFILE B336,70733Q,T  
 AIRCRAFT B-707-320B CN  
 PROCDSES 270K LBS., ATA T/C  
 PCINT 0 0 14700 0  
 POINT 6050 0 14700 163  
 PCINT 18250 1500 14700 163 GRAD=.123  
 POINT 19250 1592 13000 163  
 PCINT 34200 3000 13000 163 GRAD=.094  
 POINT 66400 5254 13000 250 GRAD=.070  
 PCINT 125000 11407 13000 250 GRAD=.105

\*

PROFILE B337,70733Q,T  
 AIRCRAFT B-707-320B QN  
 PROCDSES 290K LBS., ATA T/C  
 PCINT 0 0 14630 0  
 PCINT 7050 0 14630 168  
 POINT 20950 1500 14630 168 GRAD=.108  
 PCINT 21950 1581 12990 168  
 POINT 39500 3000 12990 168 GRAD=.081  
 PCINT 70100 4744 12990 250 GRAD=.057  
 PCINT 125000 9905 12990 250 GRAD=.094

\*

PROFILE B338,70733Q,T  
 AIRCRAFT B-707-320B CN  
 PROCDSES 310K LBS., ATA T/C  
 PCINT 0 0 14560 0  
 POINT 8150 0 14560 173  
 PCINT 23950 1500 14560 173 GRAD=.095  
 POINT 24950 1571 12950 173  
 PCINT 45100 3000 12950 173 GRAD=.071  
 POINT 74100 4205 12950 250 GRAD=.045  
 PCINT 125000 8835 12950 250 GRAD=.089

\*

PROFILE B339,70733Q,T  
 AIRCRAFT B-707-320B QN  
 PROCDSES 333.6K LBS., ATA T/C  
 PCINT 0 0 14480 0  
 PCINT 9500 0 14480 179  
 PCINT 28200 1500 14480 179 GRAD=.080  
 PCINT 29200 1560 12910 179  
 POINT 53200 3000 12910 179 GRAD=.060  
 PCINT 80300 3859 12910 250 GRAD=.032  
 POINT 125000 7390 12910 250 GRAD=.079

\*

PROFILE B340,70733Q,L  
 AIRCRAFT B-707-320B CN  
 PROCDSES MAX FLAPS APPROACH  
 PCINT 0 0 6250 147  
 POINT 100000 5220 7500 147 GRAD=.052

PROFILE B055,DC830B,T  
 AIRCRAFT DC-8-30  
 PROCDES 200K LBS., ATA T/O  
 POINT 0 C 3 0  
 PCINT 3600 0 3 145  
 PCINT 11600 1500 3 145 GRAD=.187  
 PCINT 12600 1632 2 145  
 POINT 23000 3000 2 145 GRAD=.132  
 PCINT 60650 5854 2 250 GRAD=.076  
 POINT 125000 15270 2 250 GRAD=.146

\*  
 PROFILE B056,DC830B,T  
 AIRCRAFT DC-8-30  
 PROCDES 220K LBS., ATA T/O  
 PCINT 0 C 3 0  
 PCINT 4250 C 3 148  
 PCINT 14000 1500 3 148 GRAD=.154  
 PCINT 15000 1611 2 148  
 POINT 27500 3000 2 148 GRAD=.111  
 PCINT 64100 5270 2 250 GRAD=.062  
 PCINT 125000 13512 2 250 GRAD=.135

\*  
 PROFILE B099,DC830B,T  
 AIRCRAFT EC-8-30  
 PRCCDES 300K LBS., ATA T/C  
 PCINT 0 C 3 0  
 PCINT 7250 C 3 169  
 PCINT 25500 1500 3 169 GRAD=.082  
 PCINT 26500 1559 2 169  
 POINT 51000 3000 2 169 GRAD=.059  
 PCINT 81150 3781 2 250 GRAD=.026  
 POINT 125000 6522 2 250 GRAD=.063

\*  
 PROFILE B057,DC830B,L  
 AIRCRAFT DC-8-30  
 PRCCDES MAX FLAPS APPROACH  
 PCINT C C 1 150  
 POINT 100000 5240 1 150 GRAD=.052



PROFILE B260,DC 813B,T  
 AIRCRAFT CC-8-55/61  
 PROCDES 220K LBS., ATA T/O  
 PCINT 0 0 15000 0  
 POINT 4000 C 15000 146  
 PCINT 13000 1500 15000 146 GRAD=.167  
 POINT 14000 1608 11800 146  
 PCINT 26850 3000 11800 146 GRAD=.108  
 POINT 64350 6188 11800 250 GRAD=.085  
 PCINT 125000 13467 11800 250 GRAD=.120

\*

PROFILE B261,DC 813B,T  
 AIRCRAFT DC-8-55/61  
 PROCDES 240K LBS., ATA T/C  
 PCINT 0 C 15000 0  
 PCINT 4750 0 15000 151  
 POINT 16050 1500 15000 151 GRAD=.133  
 PCINT 17050 1593 11800 151  
 POINT 32150 3000 11800 151 GRAD=.093  
 PCINT 68050 5519 11800 250 GRAC=.070  
 POINT 125000 11500 11800 250 GRAD=.105

\*

PROFILE B262,DC 813B,T  
 AIRCRAFT CC-8-55/61  
 PROCDES 260K LBS., ATA T/C  
 PCINT 0 0 15000 0  
 POINT 5500 C 15000 156  
 PCINT 18000 1500 15000 156 GRAD=.120  
 POINT 19000 1578 11700 156  
 PCINT 37200 3000 11700 156 GRAD=.078  
 POINT 71450 4788 11700 250 GRAD=.052  
 PCINT 125000 9822 11700 250 GRAC=.094

\*

PROFILE B263,DC 813B,T  
 AIRCRAFT DC-8-55/61  
 PROCDES 280K LBS., ATA T/C  
 POINT 0 C 15000 0  
 PCINT 6500 0 15000 161  
 POINT 21000 1500 15000 161 GRAD=.103  
 PCINT 22000 1566 11700 161  
 POINT 43900 3000 11700 161 GRAD=.065  
 PCINT 76550 4277 11700 250 GRAC=.039  
 POINT 125000 8248 11700 250 GRAD=.082

\*

PROFILE B264,DC813B,T  
 AIRCRAFT CC-8-55/61  
 PROCDES 300K LBS., ATA T/C  
 PCINT 0 C 15000 0  
 PCINT 7500 C 15000 166  
 POINT 24000 1500 15000 166 GRAD=.091  
 PCINT 25000 1555 11600 166  
 PCINT 51250 3000 11600 166 GRAD=.055  
 PCINT 82300 3753 11600 250 GRAD=.024  
 PCINT 125000 6912 11600 250 GRAD=.074

\*  
 PROFILE B265,DC813B,T  
 AIRCRAFT CC-8-55/61  
 PROCDES 325K LBS., ATA T/C  
 PCINT 0 C 15000 0  
 POINT 8500 C 15000 172  
 PCINT 28500 1500 15000 172 GRAD=.075  
 POINT 29500 1543 11600 172  
 PCINT 63000 3000 11600 172 GRAD=.043  
 PCINT 92150 3461 11600 250 GRAD=.016  
 PCINT 125000 5431 11600 250 GRAD=.060

\*  
 PROFILE B266,DC813B,L  
 AIRCRAFT CC-8-55/61  
 PROCDES MAX FLAPS APPROACH  
 PCINT 0 C 5180 143  
 PCINT 100000 5240 6230 143 GRAD=.052

PROFILE 8341,DC813C,T  
 AIRCRAFT DC-8-55/61 (SAM)  
 PROCDES 220K LBS., ATA T/C  
 PCINT 0 C 15000 0  
 PCINT 4000 C 15000 146  
 POINT 13000 1500 15000 146 GRAD=.167  
 PCINT 14000 1608 11800 146  
 POINT 26850 3000 11800 146 GRAD=.108  
 PCINT 64350 6188 11800 250 GRAD=.085  
 POINT 125000 12982 11800 250 GRAD=.112

\*

PROFILE 8342,DC813Q,T  
 AIRCRAFT DC-8-55/61 (SAM)  
 PROCDES 240K LBS., ATA T/C  
 PCINT 0 C 15000 0  
 PCINT 4750 C 15000 151  
 POINT 16050 1500 15000 151 GRAD=.133  
 PCINT 17050 1592 11800 151  
 PCINT 32150 3000 11800 151 GRAD=.093  
 PCINT 68050 5519 11800 250 GRAD=.070  
 PCINT 125000 11500 11800 250 GRAD=.105

\*

PROFILE 8343,DC813C,T  
 AIRCRAFT DC-8-55/61 (SAM)  
 PROCDES 260K LBS., ATA T/C  
 PCINT 0 C 15000 0  
 PCINT 5500 C 15000 156  
 POINT 18000 1500 15000 156 GRAD=.120  
 POINT 19000 1578 11700 156  
 PCINT 37200 3000 11700 156 GRAD=.078  
 POINT 71450 4788 11700 250 GRAD=.052  
 PCINT 125000 9822 11700 250 GRAD=.094

\*

PROFILE 8344,DC813C,T  
 AIRCRAFT DC-8-55/61 (SAM)  
 PROCDES 280K LBS., ATA T/C  
 POINT 0 C 15000 0  
 PCINT 6500 0 15000 161  
 POINT 21000 1500 15000 161 GRAD=.103  
 PCINT 22000 1566 11700 161  
 POINT 43900 3000 11700 161 GRAD=.065  
 PCINT 76550 4277 11700 250 GRAD=.039  
 POINT 125000 8248 11700 250 GRAD=.082

\*

PROFILE	B345,DC813C,T				
AIRCRAFT	CC-8-55/61 (SAM)				
PROCD	300K LBS., ATA T/C				
POINT	0	C	15000	0	
POINT	7500	C	15000	166	
POINT	24000	1500	15000	166	GRAD=.091
POINT	25000	1555	11600	166	
POINT	51250	3000	11600	166	GRAD=.055
POINT	82300	3753	11600	250	GRAD=.024
POINT	125000	6912	11600	250	GRAD=.074

\*

PROFILE	B346,DC813Q,T				
AIRCRAFT	DC-8-55/61 (SAM)				
PROCD	325K LBS., ATA T/C				
POINT	0	C	15000	0	
POINT	8500	C	15000	172	
POINT	28500	1500	15000	172	GRAD=.075
POINT	29500	1543	11600	172	
POINT	63000	3000	11600	172	GRAD=.043
POINT	92150	3461	11600	250	GRAD=.016
POINT	125000	5431	11600	250	GRAD=.060

\*

PROFILE	B347,DC813C,L				
AIRCRAFT	DC-8-55/61 (SAM)				
PROCD	MAX FLAPS APPROACH				
POINT	0	C	5180	143	
POINT	100000	5240	6230	143	GRAD=.052

\*



PROFILE B267,DC837B,T  
 AIRCRAFT CC-8-63  
 PROCDSES 220K LBS., ATA T/C  
 POINT 0 C 15800 C  
 POINT 3500 C 15800 143  
 POINT 12000 1500 15800 143 GRAD=.176  
 POINT 13000 1628 12500 143  
 POINT 23700 3000 12500 143 GRAD=.128  
 POINT 62250 6817 12500 250 GRAD=.099  
 POINT 125000 15226 12500 250 GRAD=.134

\*  
 PROFILE B268,DC837B,T  
 AIRCRAFT CC-8-63  
 PROCDSES 240K LBS., ATA T/O  
 POINT 0 C 15800 0  
 POINT 4200 C 15800 148  
 POINT 13500 1500 15800 148 GRAD=.161  
 POINT 14500 1610 12480 148  
 POINT 27150 3000 12480 148 GRAD=.110  
 POINT 64100 6140 12480 250 GRAD=.085  
 POINT 125000 13448 12480 250 GRAD=.120

\*  
 PROFILE B269,DC837B,T  
 AIRCRAFT CC-8-63  
 PROCDSES 260K LBS., ATA T/C  
 POINT 0 0 15800 0  
 POINT 4900 0 15800 153  
 POINT 15000 1500 15800 153 GRAD=.149  
 POINT 16000 1595 12460 153  
 POINT 30800 3000 12460 153 GRAD=.095  
 POINT 66050 5291 12460 250 GRAD=.065  
 POINT 125000 11599 12460 250 GRAD=.107

\*  
 PROFILE B270,DC837B,T  
 AIRCRAFT CC-8-63  
 PROCDSES 280K LBS., ATA T/C  
 POINT 0 0 15800 0  
 POINT 5600 0 15800 158  
 POINT 17500 1500 15800 158 GRAD=.126  
 POINT 18500 1583 12440 158  
 POINT 35550 3000 12440 158 GRAD=.083  
 POINT 69250 4786 12440 250 GRAD=.053  
 POINT 125000 10128 12440 250 GRAD=.096

PROFILE B271,DC837B,T  
 AIRCRAFT CC-8-63  
 PROCDDES 300K LBS., ATA T/C  
 PCINT 0 C 15800 0  
 PCINT 6300 C 15800 163  
 POINT 20450 1500 15800 163 GRAD=.106  
 PCINT 21450 1572 12420 163  
 POINT 41300 3000 12420 163 GRAD=.072  
 PCINT 73350 4218 12420 250 GRAD=.038  
 PCINT 125000 8656 12420 250 GRAD=.086

\*  
 PROFILE B272,DC837B,T  
 AIRCRAFT DC-8-63  
 PROCDDES 320K LBS., ATA T/C  
 PCINT 0 C 15800 0  
 PCINT 7000 C 15800 167  
 PCINT 22950 1500 15800 167 GRAD=.094  
 POINT 23950 1562 12400 167  
 PCINT 47150 3000 12400 167 GRAD=.062  
 POINT 77950 3987 12400 250 GRAD=.032  
 PCINT 125000 7601 12400 250 GRAD=.077

\*  
 PROFILE B273,DC837B,T  
 AIRCRAFT CC-8-63  
 PROCDDES 340K LBS., ATA T/C  
 PCINT 0 C 15800 0  
 PCINT 7700 C 15800 171  
 POINT 26000 1500 15800 171 GRAD=.082  
 PCINT 27000 1553 12380 171  
 POINT 54300 3000 12380 171 GRAD=.053  
 PCINT 83850 3799 12380 250 GRAD=.027  
 PCINT 125000 6682 12380 250 GRAD=.070

\*  
 PROFILE B274,DC837B,T  
 AIRCRAFT CC-8-63  
 PROCDDES 355K LBS., ATA T/C  
 PCINT 0 C 15800 0  
 PCINT 8400 C 15800 175  
 PCINT 28500 1500 15800 175 GRAD=.075  
 PCINT 29500 1547 12360 175  
 POINT 60400 3000 12360 175 GRAD=.047  
 POINT 88700 3649 12360 250 GRAD=.023  
 POINT 125000 5972 12360 250 GRAD=.064

\*  
 PROFILE B275,DC837B,L  
 AIRCRAFT CC-8-63  
 PROCDDES MAX FLAPS APPROACH  
 POINT 0 C 5000 158  
 PCINT 100000 5240 6010 158 GRAD=.052

PROFILE B348,DC837Q,T  
 AIRCRAFT DC-8-63 (SAM)  
 PROCDES 220K LBS., ATA T/C  
 PCINT 0 0 15800 0  
 POINT 3500 C 15800 143  
 PCINT 12000 1500 15800 143 GRAD=.176  
 POINT 13000 1628 12500 143  
 PCINT 23700 3000 12500 143 GRAD=.128  
 POINT 62250 6817 12500 250 GRAD=.099  
 PCINT 125000 15226 12500 250 GRAD=.134

\*

PROFILE B349,DC837Q,T  
 AIRCRAFT DC-8-63 (SAM)  
 PROCDES 240K LBS., ATA T/C  
 POINT 0 C 15800 0  
 PCINT 4200 0 15800 148  
 POINT 13500 1500 15800 148 GRAD=.161  
 PCINT 14500 1610 12480 148  
 POINT 27150 3000 12480 148 GRAD=.110  
 PCINT 64100 6140 12480 250 GRAD=.085  
 POINT 125000 13448 12480 250 GRAD=.120

\*

PROFILE B350,DC837Q,T  
 AIRCRAFT DC-8-63 (SAM)  
 PROCDES 260K LBS., ATA T/C  
 PCINT 0 C 15800 0  
 POINT 4900 C 15800 153  
 PCINT 15000 1500 15800 153 GRAD=.149  
 POINT 16000 1595 12460 153  
 PCINT 30800 3000 12460 153 GRAD=.095  
 POINT 66050 5291 12460 250 GRAD=.065  
 PCINT 125000 11599 12460 250 GRAD=.107

\*

PROFILE B351,DC837Q,T  
 AIRCRAFT DC-8-63 (SAM)  
 PROCDES 280K LBS., ATA T/C  
 POINT 0 C 15800 0  
 PCINT 5600 C 15800 158  
 POINT 17500 1500 15800 158 GRAD=.126  
 PCINT 18500 1582 12440 158  
 POINT 35550 3000 12440 158 GRAD=.083  
 PCINT 69250 4786 12440 250 GRAD=.053  
 POINT 125000 10138 12440 250 GRAD=.096

\*

PROFILE B352,DC837Q,T  
 AIRCRAFT CC-8-63 (SAM)  
 PROCDDES 300K LBS., ATA 1/C  
 POINT 0 C 15800 0  
 PCINT 6300 C 15800 163  
 PCINT 20450 1500 15800 163 GRAD=.106  
 PCINT 21450 1572 12420 163  
 POINT 41300 3000 12420 163 GRAD=.072  
 PCINT 73350 4218 12420 250 GRAD=.038  
 POINT 125000 8656 12420 250 GRAD=.086

\*  
 PROFILE B353,DC837Q,T  
 AIRCRAFT DC-8-63 (SAM)  
 PROCDDES 320K LBS., ATA 1/O  
 PCINT 0 C 15800 0  
 PCINT 7000 C 15800 167  
 PCINT 22950 1500 15800 167 GRAD=.094  
 POINT 23950 1562 12400 167  
 PCINT 47150 3000 12400 167 GRAD=.062  
 PCINT 77950 3987 12400 250 GRAD=.032  
 PCINT 125000 7601 12400 250 GRAD=.077

\*  
 PROFILE B354,DC837Q,T  
 AIRCRAFT CC-8-63 (SAM)  
 PROCDDES 340K LBS., ATA 1/C  
 PCINT 0 C 15800 0  
 PCINT 7700 C 15800 171  
 PCINT 26000 1500 15800 171 GRAD=.082  
 PCINT 27000 1553 12380 171  
 POINT 54300 3000 12380 171 GRAD=.053  
 PCINT 83850 3799 12380 250 GRAD=.027  
 POINT 125000 6682 12380 250 GRAD=.070

\*  
 PROFILE B355,DC837Q,T  
 AIRCRAFT DC-8-63 (SAM)  
 PROCDDES 355K LBS., ATA 1/O  
 PCINT 0 C 15800 0  
 POINT 8400 C 15800 175  
 POINT 28500 1500 15800 175 GRAD=.075  
 PCINT 29500 1547 12360 175  
 POINT 60400 3000 12360 175 GRAD=.047  
 PCINT 88700 3649 12360 250 GRAD=.023  
 PCINT 125000 5972 12360 250 GRAD=.064

\*  
 PROFILE B356,DC837Q,L  
 AIRCRAFT DC-8-63 (SAM)  
 PROCDDES MAX FLAPS APPROACH  
 PCINT 0 C 5000 158  
 PCINT 100000 5240 6010 158 GRAD=.052



PROFILE B058,DC830B,T  
 AIRCRAFT CV-880  
 PROCDES SHORT RANGE, ATA T/O  
 POINT 0 C 3 0  
 POINT 5000 C 3 154  
 PCINT 16750 15CC 3 154 GRAD=.128  
 POINT 17750 159C 2 154  
 PCINT 33500 300C 2 154 GRAD=.090  
 POINT 68200 4472 2 250 GRAD=.042  
 PCINT 125000 11341 2 250 GRAD=.121

\*

PROFILE B059,DC830B,T  
 AIRCRAFT CV-880  
 PROCDES MED RANGE, ATA T/O  
 PCINT 0 C 3 0  
 PCINT 6000 C 3 160  
 POINT 19750 15CC 3 160 GRAD=.109  
 POINT 20750 1572 2 160  
 PCINT 40550 300C 2 160 GRAD=.072  
 PCINT 73400 4006 2 250 GRAD=.031  
 PCINT 125000 9627 2 250 GRAD=.109

\*

PROFILE B060,DC830B,T  
 AIRCRAFT CV-880  
 PROCDES LONG RANGE, ATA T/O  
 POINT C C 3 0  
 POINT 7250 C 3 169  
 PCINT 25500 15CC 3 169 GRAD=.082  
 POINT 26500 1559 2 169  
 PCINT 51000 300C 2 169 GRAD=.059  
 PCINT 81150 378C 2 250 GRAD=.026  
 PCINT 125000 6519 2 250 GRAD=.062

\*

PROFILE B061,DC830B,L  
 AIRCRAFT CV-880  
 PROCDES MAX FLAPS APPROACH  
 POINT 0 C 1 130  
 PCINT 100000 524C 1 130 GRAD=.052

\*

PROFILE B287,74717B,T  
 AIRCRAFT B-747-100  
 PROCDDES 550K LBS., ATA T/C  
 POINT 0 C 3360 0  
 PCINT 4650 C 3360 155  
 PCINT 14250 1500 3360 155 GRAD=.156  
 PCINT 15250 1589 3050 155  
 POINT 31100 3000 3050 155 GRAD=.089  
 PCINT 65750 5079 3050 250 GRAD=.060  
 POINT 125000 10767 3050 250 GRAD=.096

\*

PROFILE B288,74717B,T  
 AIRCRAFT B-747-100  
 PROCDDES 575K LBS., ATA T/C  
 PCINT 0 C 3360 0  
 POINT 5100 C 3360 159  
 PCINT 15550 1500 3360 159 GRAD=.144  
 POINT 16550 1582 3050 159  
 PCINT 33900 3000 3050 159 GRAD=.082  
 PCINT 67300 4717 3050 250 GRAD=.051  
 PCINT 125000 9713 3050 250 GRAD=.087

\*

PROFILE B289,74717B,T  
 AIRCRAFT B-747-100  
 PROCDDES 600K LBS., ATA T/C  
 PCINT 0 C 3360 0  
 PCINT 5550 C 3360 163  
 POINT 16900 1500 3360 163 GRAD=.132  
 PCINT 17900 1575 3050 163  
 PCINT 37000 3000 3050 163 GRAD=.075  
 PCINT 69150 4416 3050 250 GRAD=.044  
 PCINT 125000 8714 3050 250 GRAD=.077

\*

PROFILE B290,74717B,T  
 AIRCRAFT B-747-100  
 PROCDDES 625K LBS., ATA T/C  
 PCINT 0 C 3360 0  
 PCINT 6000 C 3360 167  
 PCINT 18200 1500 3360 167 GRAD=.123  
 PCINT 19200 1571 3050 167  
 PCINT 39400 3000 3050 167 GRAD=.071  
 PCINT 70250 4109 3050 250 GRAD=.036  
 PCINT 125000 8054 3050 250 GRAD=.072

\*

PROFILE	B291,74717B,T				
AIRCRAFT	B-747-100				
PROCDDES	650K LBS., ATA T/C				
POINT	0	C	3360	C	
PCINT	6550	C	3360	170	
POINT	19650	1500	3360	170	GRAD=.115
PCINT	20650	1564	3060	170	
POINT	43100	3000	3060	170	GRAD=.064
PCINT	73000	3865	3060	250	GRAD=.029
POINT	125000	7271	3060	250	GRAD=.065

\*

PROFILE	B292,74717B,T				
AIRCRAFT	B-747-100				
PROCDDES	675K LBS., ATA T/C				
POINT	0	C	3360	0	
POINT	7100	C	3360	174	
PCINT	21250	1500	3360	174	GRAD=.106
POINT	22250	1558	3060	174	
PCINT	47100	3000	3060	174	GRAD=.058
POINT	75750	3745	3060	250	GRAD=.026
PCINT	125000	6702	3060	250	GRAD=.060

\*

PROFILE	B293,74717B,T				
AIRCRAFT	B-747-100				
PROCDDES	700K LBS., ATA T/C				
POINT	0	C	3360	0	
PCINT	7700	C	3360	178	
POINT	22850	1500	3360	178	GRAD=.099
PCINT	23850	1553	3060	178	
POINT	51150	3000	3060	178	GRAD=.053
PCINT	78500	3600	3060	250	GRAD=.022
POINT	125000	5970	3060	250	GRAD=.051

\*

PROFILE	B294,74717B,T				
AIRCRAFT	B-747-100				
PROCDDES	735K LBS., ATA T/C				
POINT	0	C	3360	0	
POINT	8700	C	3360	183	
PCINT	25400	1500	3360	183	GRAD=.090
POINT	26400	1547	3070	183	
PCINT	57300	3000	3070	183	GRAD=.047
POINT	83000	3462	3070	250	GRAD=.018
PCINT	125000	5311	3070	250	GRAD=.044

\*

PROFILE	B295,74717B,L				
AIRCRAFT	B-747-100				
PROCDDES	MAX FLAPS APPROACH				
POINT	C	C	2280	142	
POINT	100000	5220	2480	142	GRAD=.052

\*

PROFILE B276,74727B,T  
 AIRCRAFT B-747-200  
 PROCDDES 550K LBS., ATA T/O  
 PCINT 0 0 3360 0  
 PCINT 4650 0 3360 155  
 POINT 14250 1500 3360 155 GRAD=.156  
 PCINT 15250 1589 3050 155  
 POINT 31100 3000 3050 155 GRAD=.089  
 PCINT 65750 5079 3050 250 GRAD=.060  
 POINT 125000 10767 3050 250 GRAD=.096

\*

PROFILE B277,74727B,T  
 AIRCRAFT B-747-200  
 PROCDDES 575K LBS., ATA T/C  
 PCINT 0 0 3360 0  
 POINT 5100 0 3360 159  
 PCINT 15550 1500 3360 159 GRAD=.144  
 POINT 16550 1582 3050 159  
 PCINT 33900 3000 3050 159 GRAD=.082  
 POINT 67250 4702 3050 250 GRAD=.051  
 PCINT 125000 9724 3050 250 GRAD=.087

\*

PROFILE B278,74727B,T  
 AIRCRAFT B-747-200  
 PROCDDES 600K LBS., ATA T/C  
 PCINT 0 0 3360 0  
 PCINT 5550 0 3360 163  
 POINT 16900 1500 3360 163 GRAD=.132  
 PCINT 17900 1575 3050 163  
 POINT 37000 3000 3050 163 GRAD=.075  
 PCINT 69150 4416 3050 250 GRAD=.044  
 PCINT 125000 8714 3050 250 GRAD=.077

\*

PROFILE B279,74727B,T  
 AIRCRAFT B-747-200  
 PROCDDES 625K LBS., ATA T/C  
 PCINT 0 0 3360 0  
 POINT 6000 0 3360 167  
 PCINT 18200 1500 3360 167 GRAD=.123  
 POINT 19200 1571 3050 167  
 PCINT 39400 3000 3050 167 GRAD=.071  
 POINT 70250 4109 3050 250 GRAD=.036  
 PCINT 125000 8054 3050 250 GRAD=.072

\*



PROFILE B280,74727B,T  
 AIRCRAFT B-747-200  
 PROCDDES 650K LBS., ATA 1/C  
 POINT 0 C 3360 0  
 PCINT 6550 0 3360 170  
 POINT 19650 1500 3360 170 GRAD=.115  
 PCINT 20650 1564 3060 170  
 POINT 43100 3000 3060 170 GRAD=.064  
 PCINT 73000 3838 3060 250 GRAD=.028  
 POINT 125000 7271 3060 250 GRAD=.066

\*

PROFILE B281,74727B,T  
 AIRCRAFT B-747-200  
 PROCDDES 675K LBS., ATA 1/C  
 PCINT 0 0 3360 0  
 POINT 7100 0 3360 174  
 PCINT 21250 1500 3360 174 GRAD=.106  
 POINT 22250 1558 3060 174  
 PCINT 47100 3000 3060 174 GRAD=.058  
 POINT 75750 3745 3060 250 GRAD=.026  
 PCINT 125000 6702 3060 250 GRAD=.060

\*

PROFILE B282,74727B,T  
 AIRCRAFT B-747-200  
 PROCDDES 700K LBS., ATA 1/C  
 PCINT 0 0 3360 0  
 PCINT 7700 0 3360 178  
 POINT 22850 1500 3360 178 GRAD=.099  
 PCINT 23850 1553 3060 178  
 POINT 51150 3000 3060 178 GRAD=.053  
 PCINT 78500 3600 3060 250 GRAD=.022  
 POINT 125000 5970 3060 250 GRAD=.051

\*

PROFILE B283,74727B,T  
 AIRCRAFT B-747-200  
 PROCDDES 725K LBS., ATA 1/C  
 PCINT 0 0 3360 0  
 POINT 8400 0 3360 181  
 PCINT 24600 1500 3360 181 GRAD=.093  
 POINT 25600 1548 3070 181  
 PCINT 55850 3000 3070 181 GRAD=.048  
 POINT 82200 3470 3070 250 GRAD=.018  
 PCINT 125000 5440 3070 250 GRAD=.046

\*

PROFILE B284,74727B,T  
 AIRCRAFT B-747-2CC  
 PROCDDES 750K LBS., ATA T/O  
 POINT 0 C 3360 0  
 PCINT 9150 C 3360 185  
 POINT 26550 1500 3360 185 GRAD=.086  
 PCINT 27550 1544 3070 185  
 POINT 60650 3000 3070 185 GRAD=.044  
 PCINT 85700 3350 3070 250 GRAD=.014  
 POINT 125000 5080 3070 250 GRAD=.044

\*

PROFILE B285,74727B,T  
 AIRCRAFT B-747-200  
 PROCDDES 775K LBS., ATA T/C  
 PCINT 0 C 3360 0  
 POINT 9950 C 3360 188  
 PCINT 28450 1500 3360 188 GRAD=.081  
 POINT 29450 1540 3070 188  
 PCINT 65950 3000 3070 188 GRAD=.040  
 POINT 89950 3264 3070 250 GRAD=.011  
 PCINT 125000 4700 3070 250 GRAD=.041

\*

PROFILE B286,74727B,L  
 AIRCRAFT B-747-200  
 PROCDDES MAX FL AFS APPROACH  
 POINT 0 C 2280 142  
 PCINT 100000 5220 2480 142 GRAD=.052

\*

PROFILE B011,CV580,T  
 AIRCRAFT CV-580  
 PROCDES TAKEOFF  
 PCINT 0 0 2 0  
 POINT 2800 0 2 120  
 PCINT 8000 470 2 120 GRAC=.090

\*  
 PROFILE B012,CV580,L  
 AIRCRAFT CV-580  
 PROCDES APPROACH  
 POINT C C 1 100  
 PCINT 10000 524 1 100 GRAD=.052  
 \*

PROFILE	B133,GAJET1,T				
AIRCRAFT	LEARJET				
PROCDES	NBAA TAKEOFF				
POINT	0	C	100	0	
PCINT	4000	C	100	155	
POINT	11500	1500	100	155	GRAD=.200
FCINT	12500	1575	85	155	
POINT	31500	3000	85	155	GRAD=.075
PCINT	66000	5500	85	250	GRAD=.072
POINT	125000	10000	85	250	GRAD=.076
	*				
PROFILE	B144,GAJET1,L				
AIRCRAFT	LEARJET				
PROCDES	MAX FLAPS APPROACH				
PCINT	0	0	40	155	
POINT	100000	5220	40	155	GRAD=.052
	*				



PROFILE	B134,GAJET1,T				
AIRCRAFT	JET COMMANDER				
PROCDES	NBAA TAKEOFF				
PCINT	0	0	100	0	
PCINT	3500	C	100	145	
POINT	15000	1500	100	145	GRAD=.130
POINT	16000	1560	85	145	
POINT	40000	3000	85	145	GRAD=.060
POINT	77000	5000	85	250	GRAD=.054
PCINT	125000	8000	85	250	GRAD=.062
*					
PROFILE	B141,GAJET1,L				
AIRCRAFT	JET COMMANDER				
PROCDES	MAX FLAPS APPROACH				
PCINT	0	C	40	140	
PCINT	100000	5220	40	140	GRAD=.052
*					

PROFILE	B135.GAJET2,T				
AIRCRAFT	GULFSTREAM II				
PROCD	NBAA TAKEOFF				
PCINT	0	C	100	0	
POINT	4500	C	100	175	
PCINT	13500	1500	100	175	GRAD=.167
POINT	14500	1575	85	175	
PCINT	33500	3000	85	175	GRAD=.075
POINT	62200	5000	85	250	GRAD=.070
POINT	125000	14000	85	250	GRAD=.143

\*

PROFILE	B142.GAJET2,L				
AIRCRAFT	GULFSTREAM II				
PROCD	MAX FLAPS APPROACH				
PCINT	0	C	40	155	
PCINT	100000	5220	40	155	GRAD=.052

\*

PROFILE	B136,GAJET1,T				
AIRCRAFT	JETSTAR				
PROCD	NBAA TAKEOFF				
PCINT	0	C	100	0	
POINT	5000	C	100	145	
PCINT	18000	1500	100	145	GRAD=.115
POINT	19000	1530	85	145	
PCINT	68000	3000	85	145	GRAD=.030
POINT	105000	4000	85	250	GRAD=.027
PCINT	125000	5000	85	250	GRAD=.050
*					
PROFILE	B143,GAJET1,L				
AIRCRAFT	JETSTAR				
PROCD	MAX FLAPS APPROACH				
POINT	0	C	40	140	
PCINT	100000	5220	40	140	GRAD=.052
*					

PROFILE B137,GAPRP2,T  
 AIRCRAFT BEECH BARON  
 PROCDES TAKEOFF  
 POINT 0 C 100 0  
 PCINT 750 C 100 104  
 POINT 6950 550 100 104 GRAC=.089

\*  
 PROFILE B145,GAPRP2,L  
 AIRCRAFT BEECH BARON  
 PROCDES APPROACH  
 PCINT 0 C 40 80  
 POINT 10000 524 40 80 GRAC=.052



PROFILE B138,GAPRP2,T  
 AIRCRAFT CESSNA 340  
 PROCDES TAKEOFF  
 PCINT 0 C 100 0  
 PCINT 2400 C 100 113  
 PCINT 9350 55C 100 113 GRAC=.079

\*  
 PROFILE B146,GAPRP2,L  
 AIRCRAFT CESSNA 340  
 PRCCDES APPROACH  
 PCINT 0 C 40 80  
 POINT 10000 524 40 80 GRAC=.052

PROFILE	B139,GAP&P2,T				
AIRCRAFT	NORTH AMERICAN 685				
PROCD	TAKEOFF				
PCINT	0	0	100	0	
PCINT	1900	0	100	120	
PCINT	8100	550	100	120	GRAD=.089

\*

PROFILE	B147,GAP&P2,L				
AIRCRAFT	NORTH AMERICAN 685				
PROCD	APPROACH				
PCINT	0	0	40	80	
PCINT	10000	524	40	80	GRAD=.052

\*

PROFILE	B140,GAJET3,T				
AIRCRAFT	CESSNA CITATION				
PROCD	NBAA TAKEOFF				
POINT	0	C	100	C	
PCINT	4000	C	100	155	
POINT	11500	1500	100	155	GRAD=.200
PCINT	12500	1575	85	155	
POINT	31500	3000	85	155	GRAD=.075
PCINT	66000	5500	85	250	GRAD=.072
POINT	125000	10000	85	250	GRAD=.076
*					
PROFILE	B148,GAJET3,L				
AIRCRAFT	CESSNA CITATION				
PROCD	MAX FLAPS APPROACH				
PCINT	C	C	40	155	
POINT	100000	5220	40	155	GRAD=.052
*					

PROFILE	B370,GAPRPI,T				
AIRCRAFT	GA SINGLE ENGINE				
PROCES	TAKEOFF				
PCINT	0	C	100	0	
POINT	1000	C	100	90	
PCINT	50000	5600	100	90	GRAD=.114

\*

PROFILE	B371,GAPRPI,L				
AIRCRAFT	GA SINGLE ENGINE				
PROCES	APPROACH				
PCINT	0	0	40	75	
PCINT	50000	2610	40	75	GRAD=.052



APPENDIX C

LIST OF AVAILABLE LIBRARY CODES

Table C-1 lists all the currently available codes provided in the program's noise library. These codes are listed by aircraft type; and within each type, by operational procedures and gross weight.

Table C-2 lists aircraft library codes as a function of stage length. This is not as fine a breakdown as Table C-1, but generally provides sufficient accuracy. Its format is often more convenient; furthermore, finer classifications are often not available, or are uncertain to the point of being not meaningful.

AD-A036 723

MITRE CORP MCLEAN VA METREK DIV  
FAA INTEGRATED NOISE MODEL DATA BASE, (U)  
AUG 76 P A MANSBACH

F/G 1/3

UNCLASSIFIED

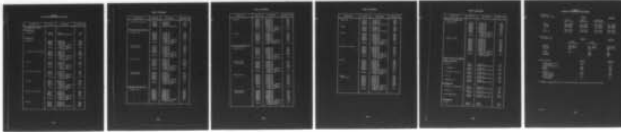
MTR-7289

FAA-EQ-76-6

DOT-FA69NS-162

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**TABLE C-1  
LIST OF AVAILABLE AIRCRAFT TYPE CODES**

AIRCRAFT TYPE	OPERATION	GROSS WEIGHT	AIRCRAFT CODE
<u>AIR CARRIER TYPE AIRCRAFT</u>			
<u>TWO ENGINE PROP</u>			
Convair 580	Takeoff	Typical	B011
	Landing	Maximum landing weight	B012
<u>TWO ENGINE JET</u>			
Boeing 737	Takeoff	80,000 lbs.	B200
	Takeoff	90,000 lbs.	B201
	Takeoff	100,000 lbs.	B202
	Takeoff	109,000 lbs. (Maximum takeoff weight)	B203
	Landing	98,000 lbs. (Maximum landing weight)	B204
Boeing 737 - Quiet Nacelle	Takeoff	80,000 lbs.	B296
	Takeoff	90,000 lbs.	B297
	Takeoff	100,000 lbs.	B298
	Takeoff	109,000 lbs. (Maximum takeoff weight)	B299
	Landing	98,000 lbs. (Maximum landing weight)	B300
DC-9-10	Takeoff	70,000 lbs.	B205
	Takeoff	80,000 lbs.	B206
	Takeoff	90,800 lbs. (Maximum takeoff weight)	B207
	Landing	81,700 lbs. (Maximum landing weight)	B208
DC-9-10 - Quiet Nacelle	Takeoff	70,000 lbs.	B301
	Takeoff	80,000 lbs.	B302
	Takeoff	90,800 lbs. (Maximum takeoff weight)	B303
	Landing	81,700 lbs. (Maximum landing weight)	B304
DC-9-30	Takeoff	80,000 lbs.	B209
	Takeoff	90,000 lbs.	B210
	Takeoff	100,000 lbs.	B211
	Takeoff	108,000 lbs. (Maximum takeoff weight)	B212
	Landing	99,000 lbs. (Maximum landing weight)	B213
DC-9-30 - Quiet Nacelle	Takeoff	80,000 lbs.	B305
	Takeoff	90,000 lbs.	B306
	Takeoff	100,000 lbs.	B307
	Takeoff	108,000 lbs. (Maximum takeoff weight)	B308
	Landing	99,000 lbs. (Maximum landing weight)	B309
BAC 1-11	Takeoff	75,000 lbs.	B119
	Takeoff	80,000 lbs.	B120
	Takeoff	87,000 lbs.	B005
	Landing	Maximum landing weight	B006

TABLE C-1 (CONTINUED)

AIRCRAFT TYPE	OPERATION	GROSS WEIGHT	AIRCRAFT CODE
BAC 1-11 - Quiet Nacelle	Takeoff	75,000 lbs.	B123
	Takeoff	80,000 lbs.	B122
	Takeoff	87,000 lbs.	B121
	Landing	Maximum landing weight	B124
<u>THREE ENGINE NARROW BODY JETS</u>			
Boeing 727-100	Takeoff	110,000 lbs.	B237
	Takeoff	120,000 lbs.	B238
	Takeoff	130,000 lbs.	B239
	Takeoff	140,000 lbs.	B240
	Takeoff	150,000 lbs.	B241
	Takeoff	160,000 lbs. (Maximum takeoff weight)	B242
	Landing	142,500 lbs. (Maximum landing weight)	B243
Boeing 727-100 - Quiet Nacelle	Takeoff	110,000 lbs.	B318
	Takeoff	120,000 lbs.	B319
	Takeoff	130,000 lbs.	B320
	Takeoff	140,000 lbs.	B321
	Takeoff	150,000 lbs.	B322
	Takeoff	160,000 lbs. (Maximum takeoff weight)	B323
	Landing	142,000 lbs. (Maximum landing weight)	B324
Boeing 727-200	Takeoff	130,000 lbs.	B230
	Takeoff	140,000 lbs.	B231
	Takeoff	150,000 lbs.	B232
	Takeoff	160,000 lbs.	B233
	Takeoff	170,000 lbs.	B234
	Takeoff	184,800 lbs. (Maximum takeoff weight)	B235
	Landing	154,500 lbs. (Maximum landing weight)	B236
Boeing 727-200 - Quiet Nacelle	Takeoff	130,000 lbs.	B311
	Takeoff	140,000 lbs.	B312
	Takeoff	150,000 lbs.	B313
	Takeoff	160,000 lbs.	B314
	Takeoff	170,000 lbs.	B315
	Takeoff	184,800 lbs. (Maximum takeoff weight)	B316
	Landing	154,400 lbs. (Maximum landing weight)	B317
<u>THREE ENGINE WIDE-BODY JETS</u>			
Lockheed 1011	Takeoff	300,000 lbs.	B214
	Takeoff	320,000 lbs.	B215
	Takeoff	340,000 lbs.	B216
	Takeoff	360,000 lbs.	B217
	Takeoff	380,000 lbs.	B218
	Takeoff	400,000 lbs.	B219
	Takeoff	430,000 lbs.	B220
	Landing	358,000 lbs. (Maximum landing weight)	B221



TABLE C-1 (CONTINUED)

AIRCRAFT TYPE	OPERATION	GROSS WEIGHT	AIRCRAFT CODE
DC-10-10	Takeoff	320,000 lbs.	B222
	Takeoff	340,000 lbs.	B223
	Takeoff	360,000 lbs.	B224
	Takeoff	380,000 lbs.	B225
	Takeoff	400,000 lbs.	B226
	Takeoff	420,000 lbs.	B227
	Takeoff	440,000 lbs. (Maximum takeoff weight)	B228
	Landing	363,500 lbs. (Maximum landing weight)	B229
DC-10-40	Takeoff	360,000 lbs.	B357
	Takeoff	400,000 lbs.	B358
	Takeoff	440,000 lbs.	B359
	Takeoff	480,000 lbs.	B360
	Takeoff	520,000 lbs.	B361
	Takeoff	540,000 lbs. (Maximum takeoff weight)	B362
	Landing	Maximum landing weight	B363
<u>FOUR ENGINE NARROW-BODY JETS</u>			
Boeing 707-120B	Takeoff	160,000 lbs.	B244
	Takeoff	180,000 lbs.	B245
	Takeoff	200,000 lbs.	B246
	Takeoff	220,000 lbs.	B247
	Takeoff	240,000 lbs.	B248
	Takeoff	258,000 lbs. (Maximum takeoff weight)	B249
	Landing	190,000 lbs. (Maximum landing weight)	B250
Boeing 707-120B - Quiet Nacelle	Takeoff	160,000 lbs.	B325
	Takeoff	180,000 lbs.	B326
	Takeoff	200,000 lbs.	B327
	Takeoff	220,000 lbs.	B328
	Takeoff	240,000 lbs.	B329
	Takeoff	258,000 lbs. (Maximum takeoff weight)	B330
	Landing	190,000 lbs. (Maximum landing weight)	B331
Boeing 707-320B	Takeoff	190,000 lbs.	B251
	Takeoff	210,000 lbs.	B252
	Takeoff	230,000 lbs.	B253
	Takeoff	250,000 lbs.	B254
	Takeoff	270,000 lbs.	B255
	Takeoff	290,000 lbs.	B256
	Takeoff	310,000 lbs.	B257
	Takeoff	333,600 lbs. (Maximum takeoff weight)	B258
	Landing	247,000 lbs. (Maximum landing weight)	B259
	Boeing 707-320B - Quiet Nacelle	Takeoff	190,000 lbs.
Takeoff		210,000 lbs.	B333
Takeoff		230,000 lbs.	B334
Takeoff		250,000 lbs.	B335
Takeoff		270,000 lbs.	B336
Takeoff		290,000 lbs.	B337
Takeoff		310,000 lbs.	B338
Takeoff		333,600 lbs. (Maximum takeoff weight)	B339
Landing		247,000 lbs. (Maximum landing weight)	B340

TABLE C-1 (CONTINUED)

AIRCRAFT TYPE	OPERATION	GROSS WEIGHT	AIRCRAFT CODE
Convair 880	Takeoff	140,000 lbs.	B058
	Takeoff	150,000 lbs.	B059
	Takeoff	170,000 lbs.	B060
	Landing	Maximum landing weight	B061
DC-8-30	Takeoff	200,000 lbs.	B055
	Takeoff	220,000 lbs.	B056
	Takeoff	300,000 lbs.	B099
	Landing	Maximum landing weight	B057
DC-8-50	Takeoff	220,000 lbs.	B260
	Takeoff	240,000 lbs.	B261
	Takeoff	260,000 lbs.	B262
	Takeoff	280,000 lbs.	B263
	Takeoff	300,000 lbs.	B264
	Takeoff	325,000 lbs. (Maximum takeoff weight)	B265
	Landing	207,000 lbs. (Maximum landing weight)	B266
DC-8-50 - Quiet Nacelle	Takeoff	220,000 lbs.	B341
	Takeoff	240,000 lbs.	B342
	Takeoff	260,000 lbs.	B343
	Takeoff	280,000 lbs.	B344
	Takeoff	300,000 lbs.	B345
	Takeoff	325,000 lbs. (Maximum takeoff weight)	B346
	Landing	207,000 lbs. (Maximum landing weight)	B347
DC-8-60	Takeoff	220,000 lbs.	B267
	Takeoff	240,000 lbs.	B268
	Takeoff	260,000 lbs.	B269
	Takeoff	280,000 lbs.	B270
	Takeoff	300,000 lbs.	B271
	Takeoff	320,000 lbs.	B272
	Takeoff	340,000 lbs.	B273
	Takeoff	355,000 lbs. (Maximum takeoff weight)	B274
	Landing	258,000 lbs. (Maximum landing weight)	B275
	DC-8-60 - Quiet Nacelle	Takeoff	220,000 lbs.
Takeoff		240,000 lbs.	B349
Takeoff		260,000 lbs.	B350
Takeoff		280,000 lbs.	B351
Takeoff		300,000 lbs.	B352
Takeoff		320,000 lbs.	B353
Takeoff		340,000 lbs.	B354
Takeoff		355,000 lbs. (Maximum takeoff weight)	B355
Landing		258,000 lbs. (Maximum landing weight)	B356

TABLE C-1 (CONCLUDED)

AIRCRAFT TYPE	OPERATION	GROSS WEIGHT	AIRCRAFT CODE
<u>FOUR ENGINE WIDE-BODY JETS</u>			
Boeing 747-100	Takeoff	550,000 lbs.	B287
	Takeoff	575,000 lbs.	B288
	Takeoff	600,000 lbs.	B289
	Takeoff	625,000 lbs.	B290
	Takeoff	650,000 lbs.	B291
	Takeoff	675,000 lbs.	B292
	Takeoff	700,000 lbs.	B293
	Takeoff	735,000 lbs. (Maximum takeoff weight)	B294
	Landing	564,000 lbs. (Maximum landing weight)	B295
	Boeing 747-200B	Takeoff	550,000 lbs.
Takeoff		575,000 lbs.	B277
Takeoff		600,000 lbs.	B278
Takeoff		625,000 lbs.	B279
Takeoff		650,000 lbs.	B280
Takeoff		675,000 lbs.	B281
Takeoff		700,000 lbs.	B282
Takeoff		725,000 lbs.	B283
Takeoff		750,000 lbs.	B284
Takeoff		775,000 lbs. (Maximum takeoff weight)	B285
Landing	564,000 lbs. (Maximum landing weight)	B286	
<u>GENERAL AVIATION TYPE AIRCRAFT</u>			
<u>GENERAL AVIATION JETS</u>			
Lear Jet	Takeoff	13,000 lbs.	B133
	Landing	Maximum landing weight	B144
Jet Commander	Takeoff	17,000 lbs.	B134
	Landing	Maximum landing weight	B141
Gulfstream II (Fan jet)	Takeoff	59,000 lbs.	B135
	Landing	Maximum landing weight	B142
Jet Star	Takeoff	30,000 lbs.	B136
	Landing	Maximum landing weight	B143
Cessna Citation	Takeoff	10,850 lbs.	B140
	Landing	Maximum landing weight	B148
<u>TWO ENGINE PROP</u>			
Typical (e.g. Beech Baron)	Takeoff	5,000 lbs.	B137
	Landing	Maximum landing weight	B145
Cessna 340	Takeoff	5,975 lbs.	B138
	Landing	Maximum landing weight	B146
North American 685	Takeoff	6,750 lbs.	B139
	Landing	Maximum landing weight	B147
<u>ONE ENGINE PROP</u>			
Typical	Takeoff	Takeoff	B370
	Landing	Landing	B371



**TABLE C-2  
AIRCRAFT TYPE CODES BY STAGE LENGTH**

**Air Carrier -  
medium range types**

	<u>Takeoff</u>			<u>Approach</u>
	Short (under 500 mi.)	Medium (500-1000 mi.)	Medium-Long (1000-2000 mi.)	
DC-9	B210 (B306*)	B211 (B307)	B212 (B308)	B213 (B309)
727-100	B238 (B319)	B240 (B321)	B242 (B323)	B243 (B324)
727-200	B231 (B312)	B233 (B314)	B235 (B316)	B236 (B317)
737	B200 (B296)	B201 (B297)	B203 (B299)	B204 (B300)
BAC-1-11	B119 (B123)	B120 (B122)	B005 (B121)	B006 (B124)

**Air Carrier -  
long range types**

	<u>Takeoff</u>		<u>Approach</u>
	Medium (under 1500 mi.)	Long (over 1500 mi.)	
DC-8-50	B260 (B341)	B263 (B344)	B266 (B347)
707-320B	B252 (B333)	B255 (B336)	B259 (B340)
DC-10-10	B225	B227	B229
L-1011	B218	B220	B221
747-100	-	B293	B295
747-200B	-	B282	B286

**General Aviation**

	<u>Takeoff</u>	<u>Approach</u>
Typical business jets (Commander)	B134	B141
Fanjets (Gulfstream II)	B135	B142
Jetstar	B136	B143
Learjet	B133	B144
Citation	B140	B148
Piston aircraft - single engine	B370	B371
Piston aircraft - twin engine	B137	B145

\* Numbers in parentheses refer to versions produced or retrofitted to meet FAR 36 levels