

EUROPEAN ORGANISATION  
FOR THE SAFETY OF AIR NAVIGATION



EUROCONTROL EXPERIMENTAL CENTRE

**AIRCRAFT PERFORMANCE SUMMARY TABLES  
FOR THE BASE OF AIRCRAFT DATA (BADA)  
REVISION 3.0**

**EEC Note No. 10/98**

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**Aircraft Performance Summary Tables  
for  
BADA Revision 3.0**

EUROCONTROL Experimental Centre

Summary

A set of aircraft performance summary tables are presented for the 67 aircraft types modelled by the Base of Aircraft Data (BADA) Revision 3.0. For each aircraft type, the performance tables specify the true air speed, rate of climb/descent and fuel flow for conditions of climb, cruise and descent at various flight levels. The performance figures contained within the tables are calculated based on a total-energy model and BADA 3.0 performance coefficients.

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# 1. INTRODUCTION

## 1.1 Identification and Scope

This note presents a set of performance summary tables for the 67 aircraft types which are modelled by BADA Revision 3.0.

BADA is a collection of ASCII files which specifies operation performance parameters and operating procedure parameters for various aircraft types. These parameters are based on a total energy model (TEM) of aircraft performance and the model is designed for use in trajectory simulation and prediction algorithms within the domain of Air Traffic Management (ATM). All files are maintained within a configuration management system at the Eurocontrol Experimental Centre (EEC) at Brétigny-sur-Orge, France. A complete description of BADA is available in the BADA 3.0 User Manual [RD1].

A Performance Table File (PTF), is provided for each aircraft type. This file contains a table of values which specifies the true air speed, rate of climb or descent and fuel flow for conditions of climb, cruise and descent at various flight levels.

The motivation for providing the performance summary tables is that many ATM applications prefer the use of table-based performance data over TEM coefficients for determining aircraft performance.

## 1.2 Organisation

This note is presented in three sections, including Section 1, the Introduction.

Section 2 provides a list of the aircraft types modelled by BADA 3.0 and for which Performance Table Files are available. A description of the content and format of these files is given in Section 3.

Copies of all 67 Performance Table files are included in this document as Appendix A.

## 1.3 Referenced Documents

- |            |   |
|------------|---|
| <b>RD1</b> | User Manual for the Base of Aircraft Data (BADA) Revision 3.0; EEC Note No. 6/97; March 1998. |
| <b>RD2</b> | Aircraft Type Designators; ICAO Document No. 8643 25th Edition; January 1997.                 |

## 1.4 Glossary of Acronyms

<b>APF</b>	Airline Procedures File
<b>ASCII</b>	American Standard Code for the Interchange of Information
<b>ATC</b>	Air Traffic Control
<b>ATM</b>	Air Traffic Management
<b>BADA</b>	Base of Aircraft Data
<b>CAS</b>	Calibrated Air Speed
<b>EEC</b>	Eurocontrol Experimental Centre
<b>ICAO</b>	International Civil Aviation Organisation
<b>ISA</b>	International Standard Atmosphere
<b>OPF</b>	Operations Performance File
<b>PTF</b>	Performance Table File
<b>TAS</b>	True Air Speed
<b>TEM</b>	Total-Energy Model
<b>UAC</b>	Upper Airspace Control Centre



## 2. AIRCRAFT TYPES

There are 67 aircraft types directly modelled by BADA Revision 3.0. **These aircraft types are listed in Table 2-1 below in alphabetical order of their aircraft code.** The aircraft code corresponds to the ICAO designator [RD2] with one exception. This exception is the generic military fighter aircraft type with the code FGTR.

Performance Table files corresponding to each of the aircraft types mentioned below are supplied as Appendix A.

**Table 2-1: List of Aircraft Types Modelled by BADA 3.0**

Aircraft Code	Aircraft Name
A300	Airbus A300
A310	Airbus A310
A320	Airbus A320
A330	Airbus A330
A340	Airbus A340
ATP	BAe Advanced Turboprop
ATR	ATR 42 / 72
B707	Boeing 707, all series
B727	Boeing 727, all series
B73A	Boeing 737-100/200 series
B73B	Boeing 737-300/400/500 series
B73C	Boeing 737-600/700/800 series
B74A	Boeing 747-100/200/300 series
B74B	Boeing 747-400
B757	Boeing 757 all series
B767	Boeing 767 all series
BA11	BAe 111, all series
BA46	BAe 146-100/200/300, RJ Series

**Table 2-1: List of Aircraft Types Modelled by BADA 3.0 (continued)**

Aircraft Code	Aircraft Name
BE20	Beech Super King Air 200 / Huron
BE99	Beech Airliner C99
BE9L	Beech King Air 90
C130	Lockheed Hercules
C160	Aerospatiale Transall C160
C421	Cessna 421 Golden Eagle
C550	Cessna Citation II-S2
C560	Cessna Citation V
CARJ	Canadair Regional Jet
CL60	Canadair Challenger 600/601
D228	Dornier 228-100/200
D328	Dornier 328
DC10	McDonnell-Douglas DC-10
DC8	McDonnell-Douglas DC-8, all series
DC9	McDonnell-Douglas DC-9
DHC8	De Havilland Dash 8, All Series
E120	Embraer Brasilia EMB-120/HH/RT
F100	Fokker 100
F27	Fokker Friendship F27
F28	Fokker Fellowship F28
F50	Fokker 50
F70	Fokker 70
F900	Dassault Falcon 900
FA10	Dassault Falcon 10
FA20	Dassault Falcon 20 /FJF/C/D/E/F
FA50	Dassault Falcon 50

**Table 2-1: List of Aircraft Types Modelled by BADA 3.0 (continued)**

Aircraft Code	Aircraft Name
FGTR	Generic Military Fighter
H25B	BAe 125 Series 400/600/700/800
JSTA	BAe Jetstream 31
JSTB	BAe Jetstream 41
L101	Lockheed L-1011 Tristar
LJ35	Bombardier Learjet 35
MD11	McDonnell-Douglas MD-11
MD80	McDonnell-Douglas MD-80/81/82/83/87/88
MU2	Mitsubishi Marquise/Solitaire
P31T	Piper Cheyenne II
PA27	Piper Aztec
PA28	Piper Cherokee Archer/Dakota/Warrior
PA31	Piper Chieftain/Mojave/Navaho
PA34	PA34-200T Seneca-III
PA42	Piper Cheyenne III/IV, 400SL
SF34	Saab Fairchild 340
SH36	Shorts 360
SW3	Fairchild Merlin IVC / Metro III
T134	Tupolev TU-134/A/B
T154	Tupolev TU-154/A/B/B2/C/M
TRIN	Aerospatiale Trinidad TB-20

### 3. FILE DESCRIPTION

The Performance Table File (PTF) is an ASCII file which for a particular aircraft type specifies cruise, climb and descent performance at different flight levels. For any aircraft type, the PTF file is generated, based on the total-energy model described in RD1, from the BADA coefficients contained in the corresponding OPF and APF files.

An example of a PTF file for the Fokker F-28 aircraft (F28) is shown below.

BADA PERFORMANCE FILE										98/03/12		
AC/Type: F28____					Last BADA Revision: 3.0							
					Source OPF File: 3.0		98/03/12					
					Source APF file: 3.0		98/03/12					
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA		
climb - 250/270				0.65	low - 20880							
cruise - 250/300				0.70	nominal - 24000			Max Alt. [ft]:		35000		
descent - 250/280				0.70	high - 33000							
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi		nom	nom	
0					127	2760	2860	2370	108.1	108	900	19.5
5					128	2710	2820	2330	106.4	108	910	19.5
10					129	2670	2780	2290	104.6	114	890	19.4
15					135	2800	2880	2360	103.3	125	850	19.4
20					136	2760	2830	2320	101.6	157	820	19.4
30	261	19.5	20.8	25.8	159	3270	3260	2650	100.0	230	1070	19.3
40	265	19.5	20.9	25.8	193	3960	3820	3070	99.3	233	1080	19.2
60	272	19.6	21.0	26.0	272	5170	4570	3410	98.3	240	1110	19.1
80	280	19.7	21.1	26.1	280	4810	4250	3140	91.7	280	1380	19.0
100	289	19.8	21.2	26.3	289	4460	3930	2880	85.4	289	1410	18.8
120	356	26.4	27.4	31.2	321	4220	3720	2730	80.9	332	1770	18.7
140	366	26.5	27.5	31.3	330	3860	3390	2460	75.1	342	1810	18.6
160	377	26.5	27.6	31.5	340	3500	3060	2200	69.7	353	1840	18.4
180	388	26.6	27.7	31.6	351	3150	2750	1940	64.6	363	1870	18.3
200	400	26.7	27.8	31.8	362	2820	2450	1690	59.8	375	1900	18.1
220	412	26.8	27.9	31.9	373	2510	2160	1460	55.3	386	1930	18.0
240	423	26.6	27.7	31.9	385	2210	1890	1230	51.2	398	1950	17.9
260	419	24.9	26.1	30.7	389	2500	2120	1320	47.1	411	1980	17.7
280	416	23.4	24.8	29.7	386	2210	1850	1070	43.2	416	2570	17.6
300	412	22.1	23.6	29.0	383	1950	1600	840	39.7	412	2430	17.5
320	408	20.9	22.6	28.5	379	1710	1380	630	36.6	408	1890	17.3
340	405	20.0	21.7	28.2	376	1510	1180	430	34.0	405	1830	17.2
360	401	19.1	21.1	28.2	372	1330	1010	240	31.7	401	1780	17.1
380	401	18.6	20.7	28.5	372	1120	810	70	29.9	401	1640	16.9
400	401	18.1	20.5	27.7	372	1010	690	0	28.5	401	1640	16.8

The header of each PTF file contains information as described below. Symbols used in the description are the same as those in the BADA 3.0 User Manual [RD1].

file creation date: This is in the first line, at the top-right corner.

aircraft type: This is in the third line.

last BADA revision: This is in the 3rd line and indicates the last BADA revision which has been released as of the file creation date.

source file revisions: The RCS revision numbers and dates of the OPF and APF files which were used to create the PTF file are given in the 4th and 5th lines respectively.

speeds: The speed laws for climb, cruise and descent are specified in lines 8, 9 and 10, that is:

climb	$V_{cl,1} / V_{cl,2}$	$M_{cl}$
cruise	$V_{cr,1} / V_{cr,2}$	$M_{cr}$
descent	$V_{des,1} / V_{des,2}$	$M_{des}$

mass Levels: The performance tables provide data for three different mass levels in lines 8, 9 and 10 that is:

low	$1.2 * m_{min}$
nominal	$m_{ref}$
high	$m_{max}$

temperature: The temperature is mentioned in line 7. All PTF files currently provide data for ISA conditions only.

maximum altitude: The maximum altitude as specified in the OPF file,  $h_{MO}$ , is given in line 9.

The table of performance data within the file consists of 13 columns. Each of these columns is described below:

Column 1	FL
Column 2	cruise TAS (nominal mass) in knots
Column 3	cruise fuel consumption (low mass) in kg/min
Column 4	cruise fuel consumption (nominal mass) in kg/min
Column 5	cruise fuel consumption (high mass) in kg/min
Column 6	climb TAS (nominal mass) in knots
Column 7	rate of climb with reduced power (low mass) in fpm
Column 8	rate of climb with reduced power (nominal mass) in fpm
Column 9	rate of climb with reduced power (high mass) in fpm
Column 10	climb fuel consumption in kg/min
Column 11	descent TAS (nominal mass) in knots
Column 12	rate of descent (nominal mass) in fpm
Column 13	descent fuel (nominal mass) consumption in fpm

The format for data presented in each line of the table is as follows (Fortran notation)

I3, 4X, I3, 2X, 3(2X, F4.1), 5X, I3, 2X, 3(1X, I4), 4X, F4.1, 5X, I3, 2X, I4, 4X, F4.1

Further explanatory notes on the data presented in the performance tables are given below:

- (a) Cruise data is only specified for flight levels greater than or equal to 30.
- (b) Performance data is specified up to a maximum flight level of 400 or to highest level for which a positive rate of climb can be achieved at the low mass. This maximum level is not necessarily the same as the maximum level specified in the OPF file and given in the PTF header.
- (c) True Air Speed for climb, cruise and descent is determined based on the speed schedules specified in Sections 4.1, 4.2 and 4.3 respectively of the BADA User Manual [RD1].
- (d) Rates of climb are calculated at each flight level assuming the energy share factors associated with constant CAS or constant Mach speed laws and using the reduced power corrections as given in Section 3.8 of RD1.
- (e) The fuel consumption in climb is independent of the aircraft mass and thus only one value is given. There are three different climb rates however corresponding to low, nominal and high mass conditions.
- (f) The rate of descent and fuel consumption in descent is calculated assuming the nominal mass. Values for other mass conditions are not given.
- (g) Discontinuities in climb rate can occur for the following reasons:
  - change in speed between flight levels (e.g. removal of 250 knot restriction above FL100)
  - transition from constant CAS to constant Mach (typically around FL300)
  - transition through the tropopause (FL360 for ISA)
- (h) Discontinuities in descent rate can occur for the following reasons:
  - transition through tropopause (FL360 for ISA)
  - transition from constant Mach to constant CAS
  - change in assumed descent thrust (specified by the BADA  $h_{des}$  parameter)
  - change in speed between flight levels (e.g. application of 250 knot limit below FL100)





# **APPENDIX A**

## **Performance Table Files for BADA 3.0**



BADA PERFORMANCE FILE										98/03/12		
AC/Type: A300__					Last BADA Revision: 3.0					98/03/12		
					Source OPF File: 3.0							
					Source APF file: 3.0							
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA		
climb - 250/300 0.78					low - 108000					Max Alt. [ft]: 39000		
cruise - 250/300 0.78					nominal - 125000							
descent - 250/300 0.78					high - 150000							
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom					hi
0					145	1540	1600	1270	219.3	135	1530	32.2
5					146	1520	1580	1250	217.2	136	1540	31.9
10					148	1500	1560	1230	215.2	142	1520	31.6
15					154	1620	1660	1310	214.4	153	1470	31.2
20					155	1600	1630	1290	212.4	185	1400	30.9
30	261	68.6	77.2	92.2	178	2060	2020	1640	213.4	230	1490	30.3
40	265	68.8	77.5	92.6	212	2650	2500	2060	216.9	233	1510	29.6
60	272	69.3	78.1	93.4	272	3470	2960	2350	221.0	240	1550	28.3
80	280	69.8	78.7	94.2	280	3320	2820	2220	212.8	280	1760	27.0
100	289	70.3	79.4	95.0	289	3160	2670	2080	204.6	289	1800	25.7
120	356	86.5	93.2	105.0	356	3150	2690	2150	208.0	356	2330	24.4
140	366	87.1	93.9	105.8	366	2950	2510	1980	199.8	366	2370	23.1
160	377	87.6	94.6	106.7	377	2750	2320	1810	191.7	377	2410	21.8
180	388	88.2	95.4	107.7	388	2540	2130	1630	183.7	388	2450	20.5
200	400	88.8	96.1	108.6	400	2330	1940	1450	175.8	400	2480	19.2
220	412	89.5	96.8	109.6	412	2120	1740	1270	168.0	412	2520	17.9
240	425	90.1	97.6	110.7	425	1910	1540	1080	160.3	425	2560	16.6
260	438	90.7	98.4	111.7	438	1690	1340	900	152.6	438	2590	15.3
280	452	91.3	99.1	112.8	452	1480	1140	710	145.0	452	2620	14.0
300	459	90.1	98.3	112.6	459	1800	1340	750	136.8	459	3660	12.7
320	455	86.3	95.3	111.0	455	1570	1110	500	127.3	455	3530	11.4
340	451	83.3	93.2	110.3	451	1330	870	240	118.2	451	3210	10.1
360	447	81.0	91.8	104.0	447	1080	610	0	109.4	447	3160	8.8
380	447	79.7	91.6	96.2	447	750	310	0	101.3	447	2910	7.5
400	447	79.1	88.7	88.7	447	500	40	0	93.4	447	2950	6.2

BADA PERFORMANCE FILE										98/03/12	
AC/Type: A310__					Last BADA Revision:		3.0				
					Source OPF File:		3.0		98/03/12		
					Source APF file:		3.0		98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA
climb - 250/300				0.80	low - 96000						
cruise - 250/300				0.80	nominal - 120000				Max Alt. [ft]:		41000
descent - 250/300				0.80	high - 142000						
FL	CRUISE				CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi		nom	nom
0					154	2000	1940	1660	163.7	145	1250
5					156	1980	1920	1640	162.5	146	1260
10					157	1970	1910	1620	161.3	153	1250
15					163	2090	2000	1700	161.8	164	1220
20					164	2070	1980	1680	160.6	196	1210
30	261	46.7	55.4	65.0	187	2520	2330	2000	164.9	230	1290
40	265	47.0	55.7	65.4	222	3100	2770	2380	172.6	233	1310
60	272	47.6	56.4	66.3	272	3930	3130	2570	181.0	240	1340
80	280	48.2	57.2	67.2	280	3800	3010	2460	175.9	280	1530
100	289	48.8	57.9	68.1	289	3670	2890	2350	170.8	289	1560
120	356	64.0	71.2	79.1	356	3730	2990	2470	181.3	356	2030
140	366	64.8	72.1	80.2	366	3550	2830	2330	175.9	366	2070
160	377	65.6	73.0	81.3	377	3360	2660	2180	170.5	377	2100
180	388	66.4	74.0	82.4	388	3180	2500	2020	165.1	388	2140
200	400	67.1	75.0	83.6	400	2980	2330	1870	159.7	400	2170
220	412	68.0	76.0	84.9	412	2790	2150	1700	154.3	412	2200
240	425	68.8	77.0	86.1	425	2590	1980	1540	148.9	425	2230
260	438	69.6	78.0	87.4	438	2380	1800	1370	143.4	438	2260
280	452	70.4	79.1	88.7	452	2180	1620	1210	137.9	452	2290
300	466	71.2	80.2	90.1	466	1970	1430	1030	132.4	466	2320
320	467	68.7	78.3	89.0	467	2550	1800	1240	124.7	467	3210
340	463	65.4	75.9	87.6	463	2310	1570	990	116.3	463	3100
360	458	62.7	74.2	86.9	458	2060	1320	730	108.3	458	2360
380	458	60.9	73.5	87.5	458	1660	970	420	100.9	458	2180
400	458	59.7	73.5	88.9	458	1410	720	150	93.8	458	2220

BADA PERFORMANCE FILE										98/03/12		
AC/Type: A320__					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)	Mach	Mass Levels [kg]				Temperature:		ISA		
climb - 250/300			0.78	low - 50160								
cruise - 250/300			0.78	nominal - 62000				Max Alt. [ft]:		39000		
descent - 250/300			0.78	high - 73500								
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi		nom	nom	
0					157	2180	2140	1890	129.4	142	1100	9.4
5					158	2160	2120	1870	128.1	143	1100	9.3
10					159	2150	2100	1850	126.8	149	1100	9.3
15					166	2250	2180	1910	125.5	160	1100	9.2
20					167	2230	2160	1890	124.2	192	1150	9.2
30	261	35.9	40.4	45.7	190	2620	2450	2140	121.6	230	1330	9.1
40	265	35.8	40.4	45.7	225	3100	2800	2440	119.1	233	1340	9.0
60	272	35.8	40.4	45.7	272	3690	3010	2520	114.1	240	1370	8.8
80	280	35.7	40.3	45.7	280	3540	2880	2400	109.1	280	1640	8.6
100	289	35.7	40.3	45.7	289	3390	2750	2270	104.1	289	1680	8.4
120	356	44.6	47.8	51.6	356	3260	2670	2230	99.4	356	2310	8.1
140	366	44.4	47.6	51.5	366	3060	2490	2070	94.6	366	2340	7.9
160	377	44.2	47.5	51.3	377	2860	2310	1900	89.8	377	2370	7.7
180	388	44.0	47.3	51.2	388	2650	2130	1740	85.1	388	2400	7.5
200	400	43.8	47.1	51.0	400	2430	1940	1560	80.5	400	2740	7.3
220	412	43.5	46.9	50.8	412	2220	1740	1390	76.0	412	2760	7.1
240	425	43.2	46.6	50.6	425	1990	1550	1210	71.6	425	2770	6.9
260	438	43.0	46.4	50.4	438	1770	1350	1030	67.2	438	2780	6.7
280	452	42.7	46.1	50.2	452	1540	1150	840	62.9	452	2790	6.5
300	459	41.5	45.1	49.3	459	1880	1360	950	58.6	459	3830	6.3
320	455	39.1	43.0	47.7	455	1690	1170	750	54.5	455	3620	6.1
340	451	37.0	41.3	46.4	451	1480	970	540	50.4	451	3430	5.8
360	447	35.2	40.0	45.6	447	1250	750	320	46.3	447	3270	5.6
380	447	33.8	39.0	44.1	447	940	470	70	42.4	447	2910	5.4
400	447	32.6	38.3	40.0	447	710	240	0	38.5	447	2840	5.2

BADA PERFORMANCE FILE										98/03/12		
AC/Type: A330__					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature: ISA			
climb - 250/300				0.80	low - 143400							
cruise - 250/300				0.80	nominal - 160000				Max Alt. [ft]: 41000			
descent - 250/300				0.80	high - 223000							
FL	CRUISE					CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi		nom	nom	
0					148	2270	2380	1920	401.5	140	780	22.2
5					149	2250	2360	1900	396.6	141	790	22.1
10					150	2230	2330	1880	391.7	147	790	22.0
15					156	2320	2410	1930	386.9	159	790	21.9
20					157	2300	2390	1910	382.1	191	850	21.8
30	261	84.2	89.0	112.0	181	2670	2690	2130	372.6	230	1030	21.6
40	265	84.2	89.0	111.9	215	3140	3070	2400	363.2	233	1040	21.4
60	272	84.0	88.8	111.9	272	3760	3400	2440	344.9	240	1060	21.0
80	280	83.9	88.7	111.8	280	3590	3240	2310	327.1	280	1320	20.6
100	289	83.7	88.6	111.8	289	3410	3070	2170	309.9	289	1350	20.2
120	356	104.9	108.3	124.6	356	3340	3020	2170	293.2	356	1940	19.8
140	366	104.4	107.9	124.3	366	3120	2810	2010	277.0	366	1970	19.4
160	377	104.0	107.4	123.9	377	2900	2610	1840	261.3	377	2000	19.0
180	388	103.4	106.9	123.5	388	2680	2410	1670	246.3	388	2030	18.6
200	400	102.9	106.4	123.1	400	2460	2210	1510	231.7	400	2060	18.2
220	412	102.3	105.8	122.7	412	2250	2000	1340	217.7	412	2080	17.8
240	425	101.6	105.2	122.2	425	2030	1810	1180	204.2	425	2110	17.4
260	438	100.9	104.5	121.7	438	1820	1610	1020	191.3	438	2130	17.0
280	452	100.1	103.8	121.2	452	1610	1420	860	178.9	452	2150	16.5
300	466	99.3	103.0	120.6	466	1410	1230	700	167.0	466	2170	16.1
320	467	94.7	98.6	117.5	467	1800	1550	820	155.7	467	2950	15.7
340	463	89.3	93.6	114.3	463	1630	1390	650	144.9	463	2770	15.3
360	458	84.5	89.3	112.1	458	1460	1210	480	134.7	458	2620	14.9
380	458	80.6	85.8	110.9	458	1180	960	270	125.0	458	2310	14.5
400	458	77.4	83.1	110.0	458	1020	800	100	115.8	458	2230	14.1

## BADA PERFORMANCE FILE

98/03/12

AC/Type: A340\_\_

Last BADA Revision: 3.0

Source OPF File: 3.0

Source APF file: 3.0

98/03/12

98/03/12

Speeds: CAS(LO/HI) Mach Mass Levels [kg] Temperature: ISA  
 climb - 250/300 0.81 low - 208800  
 cruise - 250/272 0.80 nominal - 200000 Max Alt. [ft]: 41000  
 descent - 250/300 0.81 high - 253500

FL	CRUISE				CLIMB				DESCENT			
	TAS	fuel			TAS	ROCD			TAS	ROCD	fuel	
	[kts]	[kg/min]			[kts]	[fpm]			[kts]	[fpm]	[kg/min]	
		lo	nom	hi		lo	nom	hi		nom	nom	
0					158	1340	1600	1340	297.3	154	890	29.0
5					160	1330	1590	1330	294.6	156	900	28.8
10					161	1320	1570	1310	291.9	162	900	28.6
15					167	1380	1630	1360	290.7	173	900	28.4
20					168	1360	1610	1340	288.0	205	960	28.1
30	261	101.8	98.7	119.7	192	1620	1840	1530	288.7	230	1050	27.7
40	265	102.1	99.0	120.2	226	1930	2120	1760	292.3	233	1060	27.3
60	272	102.8	99.6	121.0	272	2180	2270	1770	292.3	240	1090	26.4
80	280	103.5	100.3	121.9	280	2080	2170	1680	281.4	280	1300	25.6
100	289	104.2	101.0	122.8	289	1980	2070	1580	270.7	289	1330	24.7
120	323	113.2	110.3	129.5	356	1930	2010	1570	274.0	356	1830	23.9
140	333	113.9	111.1	130.5	366	1790	1870	1450	263.2	366	1860	23.0
160	343	114.7	111.8	131.5	377	1660	1740	1320	252.6	377	1890	22.2
180	353	115.5	112.6	132.6	388	1520	1600	1190	242.2	388	1920	21.3
200	364	116.3	113.3	133.7	400	1380	1460	1060	231.9	400	1950	20.5
220	376	117.2	114.1	134.8	412	1240	1310	930	221.7	412	1980	19.6
240	387	118.0	114.9	135.9	425	1100	1170	800	211.6	425	2010	18.8
260	400	118.9	115.7	137.1	438	960	1020	670	201.6	438	2030	17.9
280	413	119.8	116.5	138.4	452	820	880	530	191.8	452	2060	17.1
300	426	120.7	117.4	139.7	466	670	730	400	182.1	466	1910	16.2
320	440	121.6	118.2	141.0	473	800	880	400	171.4	473	2700	15.4
340	454	122.5	119.1	142.4	468	660	750	250	159.6	468	2570	14.5
360	458	121.0	117.3	140.1	464	510	600	90	148.1	464	2470	13.6
380	458	118.5	114.5	130.0	464	330	410	0	137.5	464	2200	12.8
400	458	117.1	112.7	120.3	464	170	250	0	127.2	464	2180	11.9

BADA PERFORMANCE FILE										98/03/12			
AC/Type: ATP____					Last BADA Revision: 3.0								
					Source OPF File: 3.0					98/03/12			
					Source APF file: 3.0					98/03/12			
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA		
climb	-	170/170		0.36	low	-	17042						
cruise	-	205/205		0.40	nominal	-	20000			Max Alt. [ft]: 25000			
descent	-	215/215		0.40	high	-	22930						
=====													
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min] nom	TAS [kts]	ROCD [fpm]		
		lo	nom	hi		lo	nom	hi			nom	nom	nom
=====													
0					128	2420	2150	1930	16.9	102	650	4.9	
5					139	2360	2080	1850	16.9	103	650	4.9	
10					145	2310	2010	1790	16.8	109	660	4.9	
15					174	1990	1790	1630	17.0	120	680	4.9	
20					175	1940	1750	1590	16.8	152	850	4.9	
30	214	8.8	9.1	9.6	178	1850	1670	1510	16.4	224	1770	4.9	
40	217	8.9	9.3	9.7	180	1770	1580	1430	16.0	228	1790	4.9	
60	224	9.1	9.5	10.0	186	1590	1420	1260	15.1	234	1830	4.9	
80	230	9.4	9.8	10.3	191	1410	1250	1100	14.3	241	1880	4.9	
100	237	9.6	10.1	10.6	197	1240	1080	940	13.5	249	1920	4.9	
120	245	9.9	10.4	10.9	203	1060	910	780	12.7	253	2110	4.9	
140	251	10.1	10.6	11.1	210	890	750	620	11.9	251	1980	4.9	
160	249	9.4	9.9	10.5	216	710	580	460	11.1	249	1870	4.9	
180	247	8.8	9.4	10.0	223	600	460	330	10.2	247	700	5.6	
200	245	8.3	8.9	9.2	221	490	350	210	9.3	245	700	5.1	
220	243	7.8	8.3	8.3	219	370	230	90	8.3	243	710	4.9	
240	241	7.4	7.4	7.4	217	240	100	0	7.4	241	740	4.9	
260	239	6.5	6.5	6.5	216	110	0	0	6.4	239	770	4.9	
280													
300													
320													
340													
360													
380													
400													



BADA PERFORMANCE FILE										98/03/12		
AC/Type: ATR____					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA		
climb - 160/160 0.45					low - 12348							
cruise - 230/210 0.45					nominal - 15000					Max Alt. [ft]: 25000		
descent - 220/220 0.55					high - 16700							
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi	nom		nom	nom
0					130	2260	1930	1740	13.5	106	580	5.7
5					142	2230	1880	1690	13.4	107	590	5.6
10					148	2190	1830	1650	13.2	113	600	5.6
15					164	1990	1730	1580	13.1	124	630	5.6
20					165	1960	1700	1550	13.0	156	820	5.6
30	240	9.8	10.2	10.4	167	1910	1640	1490	12.7	230	1940	5.6
40	244	9.9	10.2	10.5	170	1850	1590	1440	12.5	233	1960	5.6
60	251	10.0	10.3	10.6	175	1740	1480	1330	12.0	240	2020	5.6
80	258	10.1	10.4	10.7	180	1620	1370	1230	11.6	247	1290	5.6
100	266	10.2	10.5	10.8	186	1510	1260	1120	11.2	254	1370	5.6
120	250	8.5	9.0	9.3	191	1390	1150	1010	10.7	262	1450	5.6
140	258	8.6	9.1	9.4	197	1280	1040	900	10.3	270	1530	5.6
160	266	8.7	9.2	9.5	204	1170	930	790	9.9	279	1610	5.6
180	275	8.8	9.3	9.4	210	1050	820	680	9.4	288	1690	5.6
200	276	8.4	8.9	9.1	217	940	710	580	9.0	297	1770	5.6
220	274	7.9	8.4	8.7	225	830	600	470	8.6	306	1850	5.6
240	272	7.4	8.0	8.3	232	710	500	360	8.2	316	1930	5.6
260	269	7.0	7.6	8.0	240	600	390	250	7.9	327	2000	5.6
280	267	6.6	7.3	7.6	249	490	280	140	7.5	326	2280	5.6
300	265	6.3	7.1	7.3	257	380	170	40	7.1	324	2110	5.6
320	263	6.0	6.9	6.9	263	340	100	0	6.8	321	1970	5.6
340	260	5.8	6.5	6.5	260	290	40	0	6.4	318	1850	5.6
360	258	5.6	6.1	6.1	258	230	0	0	6.0	315	1760	5.6
380	258	5.6	5.8	5.8	258	150	0	0	5.7	315	1640	5.6
400	258	5.6	5.6	5.6	258	60	0	0	5.6	315	1610	5.6

BADA PERFORMANCE FILE										98/03/12			
AC/Type: B707__					Last BADA Revision: 3.0								
					Source OPF File: 3.0		98/03/12						
					Source APF file: 3.0		98/03/12						
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA			
climb - 250/305				0.78	low - 79200								
cruise - 250/300				0.80	nominal - 100000			Max Alt. [ft]:		42000			
descent - 250/320				0.82	high - 140000								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi					nom
0					154	2490	2380	1780	313.5	130	1190	28.0	
5					156	2480	2370	1760	310.9	131	1200	27.7	
10					157	2470	2350	1740	308.4	137	1180	27.4	
15					163	2590	2440	1810	307.1	148	1150	27.2	
20					164	2580	2430	1790	304.6	180	1130	26.9	
30	261	75.5	87.0	116.7	187	3060	2790	2060	304.5	230	1300	26.3	
40	265	75.7	87.2	117.0	222	3680	3240	2390	306.8	233	1310	25.8	
60	272	76.0	87.6	117.7	272	4570	3600	2420	306.5	240	1350	24.6	
80	280	76.3	88.1	118.4	280	4440	3490	2310	296.2	280	1600	23.5	
100	289	76.6	88.5	119.1	289	4290	3360	2210	286.0	289	1630	22.4	
120	356	99.2	108.0	130.5	361	4320	3420	2330	288.3	379	2530	21.3	
140	366	99.5	108.4	131.2	372	4120	3250	2190	277.8	390	2560	20.2	
160	377	99.8	108.8	132.0	383	3910	3070	2040	267.3	401	2600	19.0	
180	388	100.1	109.2	132.7	394	3690	2890	1890	256.7	413	2630	17.9	
200	400	100.4	109.6	133.5	406	3470	2700	1730	246.1	425	2660	16.8	
220	412	100.6	110.0	134.3	419	3230	2500	1570	235.5	438	2690	15.7	
240	425	100.8	110.4	135.1	432	2990	2290	1400	224.7	451	2720	14.6	
260	438	101.0	110.8	135.9	445	2740	2080	1230	214.0	465	2750	13.4	
280	452	101.2	111.2	136.8	459	2490	1860	1050	203.1	479	2770	12.3	
300	466	101.3	111.5	137.7	459	3210	2360	1230	190.5	483	670	96.7	
320	467	96.9	107.8	135.9	455	2930	2110	980	177.5	478	700	90.1	
340	463	91.5	103.4	134.2	451	2640	1830	710	164.6	474	740	83.5	
360	458	86.7	99.9	133.6	447	2330	1540	420	151.8	470	820	77.0	
380	458	83.1	97.5	133.6	447	1860	1150	100	139.6	470	840	70.8	
400	458	80.2	96.0	122.0	447	1550	850	0	127.4	470	970	64.7	

BADA PERFORMANCE FILE										98/03/12			
AC/Type: B727__					Last BADA Revision:		3.0						
					Source OPF File:		3.0		98/03/12				
					Source APF file:		3.0		98/03/12				
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA			
climb - 250/300				0.78	low - 54480								
cruise - 250/350				0.82	nominal - 74000			Max Alt. [ft]:		37000			
descent - 250/280				0.78	high - 86400								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi					nom
0					151	2020	1780	1490	129.8	140	1500	22.5	
5					152	2000	1760	1460	128.6	141	1510	22.4	
10					153	1980	1730	1440	127.5	147	1490	22.2	
15					159	2110	1830	1520	128.0	159	1450	22.1	
20					160	2080	1800	1490	126.8	191	1400	21.9	
30	261	38.1	48.0	55.8	183	2590	2170	1830	130.8	230	1490	21.7	
40	265	38.4	48.4	56.2	218	3240	2630	2240	137.8	233	1510	21.4	
60	272	38.9	49.1	57.1	272	4210	3020	2470	146.5	240	1550	20.8	
80	280	39.5	49.8	58.0	280	4020	2850	2310	141.3	280	1750	20.2	
100	289	40.1	50.6	58.9	289	3820	2680	2150	136.3	289	1790	19.7	
120	413	73.2	80.0	85.3	356	3740	2690	2200	145.1	332	2080	19.1	
140	425	74.1	81.0	86.5	366	3490	2480	2010	139.7	342	2120	18.6	
160	437	74.9	82.0	87.7	377	3230	2260	1810	134.2	353	2160	18.0	
180	450	75.8	83.1	88.9	388	2970	2050	1610	128.8	363	2200	17.4	
200	463	76.6	84.1	90.1	400	2710	1830	1410	123.4	375	1990	16.9	
220	476	77.5	85.2	91.3	412	2440	1610	1200	118.0	386	2040	16.3	
240	490	78.3	86.2	92.6	425	2170	1390	1000	112.6	398	2090	15.8	
260	491	74.4	82.9	89.7	438	1900	1160	790	107.2	411	2140	15.2	
280	487	69.5	78.8	86.1	452	1630	940	580	101.7	424	2190	14.6	
300	483	65.1	75.2	83.2	459	1960	1030	540	95.4	437	2240	14.1	
320	478	61.2	72.3	81.0	455	1700	770	280	87.8	451	2280	13.5	
340	474	57.9	69.9	75.3	451	1430	510	10	80.4	451	3160	12.9	
360	470	55.0	68.2	68.7	447	1150	230	0	73.3	447	3120	12.4	
380	470	53.0	62.7	62.7	447	800	0	0	66.9	447	2880	11.8	
400	470	51.5	56.9	56.9	447	520	0	0	60.8	447	2920	11.2	

BADA PERFORMANCE FILE										98/03/12		
AC/Type: B73A__					Last BADA Revision: 3.0					98/03/12		
					Source OPF File: 3.0							
					Source APF file: 3.0							
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA		
climb - 250/300 0.72					low - 32760					Max Alt. [ft]: 37000		
cruise - 250/280 0.72					nominal - 46000							
descent - 250/280 0.72					high - 52400							
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom					hi
0					142	1820	1560	1350	110.5	132	1200	11.5
5					143	1810	1550	1330	109.6	133	1210	11.5
10					144	1790	1530	1320	108.6	139	1190	11.5
15					150	1920	1630	1400	108.0	151	1160	11.5
20					151	1910	1610	1390	107.1	183	1120	11.5
30	261	30.1	36.7	40.7	175	2410	1970	1710	106.3	230	1260	11.4
40	265	30.1	36.8	40.8	209	3030	2400	2100	106.0	233	1280	11.4
60	272	30.1	36.9	40.9	272	4010	2820	2420	105.0	240	1310	11.4
80	280	30.2	37.0	41.0	280	3880	2710	2310	101.3	280	1560	11.3
100	289	30.2	37.1	41.2	289	3740	2600	2200	97.5	289	1600	11.3
120	332	35.2	40.8	44.2	356	3600	2540	2180	96.2	332	1940	11.2
140	342	35.2	40.9	44.3	366	3400	2390	2040	92.4	342	1980	11.2
160	353	35.3	41.0	44.4	377	3200	2220	1880	88.5	353	2020	11.1
180	363	35.3	41.0	44.5	388	2990	2050	1720	84.7	363	2060	11.1
200	375	35.3	41.1	44.6	400	2770	1870	1550	80.8	375	2110	11.0
220	386	35.3	41.2	44.8	412	2530	1680	1380	76.8	386	2150	11.0
240	398	35.3	41.3	44.9	425	2290	1490	1200	72.9	398	2190	10.9
260	411	35.3	41.3	45.0	431	2810	1770	1380	68.7	411	1940	10.9
280	424	35.3	41.4	45.1	427	2590	1560	1180	64.2	424	1990	10.8
300	424	33.7	40.3	44.3	424	2350	1330	950	59.8	424	2620	10.8
320	420	31.9	39.2	43.6	420	2080	1090	700	55.3	420	2550	10.7
340	416	30.4	38.4	43.2	416	1800	820	440	50.9	416	2500	10.7
360	413	29.2	37.9	43.2	413	1510	540	150	46.5	413	2480	10.6
380	412	28.3	37.8	39.1	412	1120	220	0	42.1	412	2330	10.6
400	412	27.6	35.1	35.1	412	810	0	0	37.8	412	2380	10.5

BADA PERFORMANCE FILE										98/03/12		
AC/Type: B73B__					Last BADA Revision: 3.0					98/03/12		
					Source OPF File: 3.0							
					Source APF file: 3.0							
Speeds:		CAS(LO/HI)	Mach	Mass Levels [kg]				Temperature:		ISA		
climb - 250/310			0.76	low - 38280								
cruise - 250/300			0.74	nominal - 54000				Max Alt. [ft]:		37000		
descent - 250/280			0.70	high - 62800								
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi		nom	nom	
0					162	2560	2240	1950	130.0	145	1390	7.2
5					163	2530	2210	1910	128.3	146	1400	7.2
10					164	2500	2170	1880	126.6	152	1390	7.2
15					170	2620	2250	1950	124.9	163	1360	7.2
20					172	2590	2220	1910	123.2	195	1340	7.2
30	261	30.6	38.9	44.8	195	3070	2540	2200	120.1	230	1440	7.2
40	265	30.6	38.9	44.9	229	3690	2940	2540	117.2	233	1460	7.2
60	272	30.6	39.0	44.9	272	4510	3130	2590	111.2	240	1490	7.2
80	280	30.6	39.0	44.9	280	4270	2930	2410	105.1	280	1710	7.2
100	289	30.5	39.0	45.0	289	4030	2740	2230	99.3	289	1750	7.2
120	356	37.5	43.5	47.7	367	3880	2700	2240	94.3	332	2060	7.2
140	366	37.4	43.4	47.7	378	3580	2460	2020	89.0	342	2100	7.2
160	377	37.3	43.3	47.6	389	3300	2230	1810	83.9	353	2140	7.2
180	388	37.2	43.3	47.6	401	3010	2010	1600	79.1	363	2180	7.2
200	400	37.0	43.2	47.5	413	2740	1790	1400	74.6	375	2220	7.2
220	412	36.8	43.0	47.4	425	2480	1580	1210	70.3	386	2250	7.2
240	425	36.7	42.9	47.4	438	2230	1380	1020	66.3	398	2290	7.2
260	438	36.5	42.8	47.3	452	1990	1180	840	62.5	411	2330	7.2
280	439	35.0	41.8	46.6	451	2550	1450	970	59.0	416	3270	7.2
300	436	33.2	40.6	45.9	447	2380	1270	790	55.7	412	3180	7.2
320	432	31.6	39.8	45.5	443	2220	1100	600	52.7	408	3110	7.2
340	428	30.3	39.3	45.6	439	2060	920	410	49.9	405	3070	7.1
360	424	29.3	39.1	46.0	436	1900	740	210	47.4	401	3050	7.1
380	424	28.5	39.3	44.1	435	1630	520	10	45.2	401	2890	7.1
400	424	28.0	39.9	42.3	435	1510	360	0	43.3	401	2950	7.1

BADA PERFORMANCE FILE										98/03/12		
AC/Type: B73C__					Last BADA Revision:		3.0		98/03/12			
					Source OPF File:		3.0					
					Source APF file:		3.0					
Speeds:		CAS(LO/HI)	Mach	Mass Levels [kg]				Temperature:		ISA		
climb - 250/280			0.78	low - 49800								
cruise - 250/280			0.79	nominal - 62100				Max Alt. [ft]:		45000		
descent - 250/280			0.78	high - 78200								
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi		nom	nom	
0					145	2050	1970	1530	149.5	132	1470	11.9
5					146	2030	1950	1510	148.1	133	1480	11.9
10					148	2010	1930	1480	146.7	139	1460	11.8
15					154	2150	2040	1570	146.0	151	1410	11.8
20					155	2130	2010	1550	144.6	183	1350	11.8
30	261	40.2	47.1	58.4	178	2660	2430	1900	144.5	230	1460	11.7
40	265	40.3	47.2	58.5	212	3330	2940	2340	145.6	233	1480	11.6
60	272	40.5	47.4	58.9	272	4360	3450	2600	146.4	240	1520	11.5
80	280	40.7	47.7	59.3	280	4200	3310	2470	141.0	280	1760	11.3
100	289	40.9	48.0	59.7	289	4040	3170	2330	135.7	289	1800	11.2
120	332	46.7	52.7	62.4	332	4010	3170	2370	134.0	332	1800	11.1
140	342	46.9	52.9	62.8	342	3820	3000	2220	128.9	342	1860	10.9
160	353	47.2	53.2	63.2	353	3620	2820	2060	123.9	353	1910	10.8
180	363	47.4	53.5	63.7	363	3420	2650	1900	118.9	363	1960	10.6
200	375	47.6	53.9	64.1	375	3210	2460	1740	114.1	375	2010	10.5
220	386	47.8	54.2	64.6	386	3000	2280	1570	109.3	386	2060	10.4
240	398	48.0	54.5	65.1	398	2790	2100	1410	104.7	398	2110	10.2
260	411	48.3	54.8	65.6	411	2580	1910	1240	100.1	411	2160	10.1
280	424	48.5	55.2	66.2	424	2370	1720	1070	95.7	424	2210	9.9
300	437	48.7	55.5	66.7	437	2160	1540	900	91.3	437	2260	9.8
320	451	48.9	55.9	67.3	451	1950	1350	720	87.0	451	2300	9.7
340	457	47.9	55.3	67.4	451	2490	1650	770	82.0	451	3170	9.5
360	453	46.0	54.0	67.3	447	2240	1400	500	77.0	447	3100	9.4
380	453	44.6	53.5	68.0	447	1840	1060	200	72.4	447	2840	9.2
400	453	43.6	53.4	64.8	447	1610	810	0	67.9	447	2860	9.1

BADA PERFORMANCE FILE										98/03/12		
AC/Type: B74A__					Last BADA Revision: 3.0							
					Source OPF File: 3.0		98/03/12					
					Source APF file: 3.0		98/03/12					
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA		
climb - 250/340				0.82	low - 207600							
cruise - 250/340				0.82	nominal - 280000			Max Alt. [ft]:		45000		
descent - 250/300				0.84	high - 380000							
FL	CRUISE					CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom					hi
0					174	2150	1870	1240	532.2	161	1260	47.8
5					175	2140	1850	1220	527.8	162	1270	47.4
10					177	2120	1830	1200	523.5	168	1250	47.0
15					183	2240	1910	1260	519.6	180	1210	46.7
20					184	2230	1900	1240	515.2	212	1160	46.6
30	261	133.5	172.3	244.7	208	2680	2210	1490	508.4	230	1180	45.9
40	265	133.6	172.4	244.9	242	3250	2590	1710	502.6	233	1210	45.2
60	272	133.6	172.6	245.5	272	3930	2720	1610	487.1	240	1250	43.6
80	280	133.7	172.9	246.1	280	3810	2620	1520	469.5	280	1380	42.3
100	289	133.8	173.1	246.7	289	3680	2510	1420	452.0	289	1430	40.7
120	402	185.8	207.9	249.2	402	3670	2610	1670	442.4	356	1830	39.5
140	413	185.2	207.5	249.2	413	3470	2440	1520	424.7	366	1880	37.9
160	425	184.5	207.1	249.2	425	3260	2270	1380	406.8	377	1930	36.3
180	438	183.8	206.6	249.2	438	3040	2090	1220	389.0	388	1980	34.7
200	450	183.0	206.1	249.2	450	2810	1900	1060	371.0	400	2080	29.4
220	464	182.2	205.5	249.2	464	2570	1710	900	353.1	412	2130	28.0
240	478	181.2	204.9	249.1	478	2330	1510	730	335.0	425	2180	26.6
260	491	179.8	203.9	248.9	491	3010	1890	800	316.9	438	2230	25.1
280	487	169.6	195.9	245.1	487	2790	1680	570	297.8	452	2280	23.7
300	483	160.7	189.4	243.2	483	2540	1440	320	278.7	466	2330	22.2
320	478	152.9	184.4	233.4	478	2270	1180	40	259.6	481	2380	20.8
340	474	146.4	180.9	216.2	474	1970	890	0	240.5	486	3480	19.3
360	470	141.0	179.0	199.1	470	1650	580	0	221.5	481	3420	17.8
380	470	137.1	178.8	182.2	470	1200	220	0	202.6	481	3110	16.2
400	470	134.4	165.2	165.2	470	870	0	0	183.8	481	3150	14.7

## BADA PERFORMANCE FILE

98/03/12

AC/Type: B74B\_\_

Last BADA Revision: 3.0

Source OPF File: 3.0

Source APF file: 3.0

98/03/12

98/03/12

Speeds: CAS(LO/HI) Mach Mass Levels [kg] Temperature: ISA  
 climb - 250/340 0.85 low - 240000  
 cruise - 250/290 0.85 nominal - 300000 Max Alt. [ft]: 45000  
 descent - 250/290 0.85 high - 372000

FL	CRUISE				CLIMB				DESCENT			
	TAS	fuel			TAS	ROCD			TAS	ROCD	fuel	
	[kts]	lo	nom	hi	[kts]	lo	nom	hi	[kg/min]	[fpm]	[kg/min]	
0					186	3150	3010	2570	782.8	171	1050	56.0
5					187	3130	2990	2550	775.6	173	1060	55.5
10					188	3120	2970	2530	768.3	179	1070	55.0
15					195	3220	3040	2580	758.3	190	1100	54.5
20					196	3210	3030	2560	751.1	223	1230	54.0
30	261	197.6	223.9	263.2	220	3610	3290	2760	725.8	230	1270	53.1
40	265	196.9	223.2	262.4	255	4080	3580	2880	695.1	233	1290	52.1
60	272	195.5	221.7	260.8	272	4440	3550	2780	661.8	240	1340	50.1
80	280	194.0	220.1	259.1	280	4310	3430	2680	633.7	280	1640	48.1
100	289	192.4	218.4	257.3	289	4170	3310	2560	605.8	289	1690	46.2
120	344	219.7	238.4	266.4	402	3770	3040	2410	532.0	344	2270	44.2
140	354	217.1	235.7	263.6	413	3550	2840	2240	505.4	354	2320	42.2
160	365	214.3	232.9	260.8	425	3320	2640	2060	479.1	365	2370	40.3
180	376	211.4	230.0	257.8	438	3080	2440	1880	453.2	376	2420	38.3
200	387	208.4	227.0	254.7	450	2830	2230	1690	427.6	387	2470	36.4
220	399	205.3	223.8	251.4	464	2580	2010	1500	402.4	399	2520	34.4
240	412	202.0	220.5	248.1	478	2330	1790	1300	377.6	412	2570	32.4
260	424	198.6	217.0	244.6	492	2060	1560	1100	353.2	424	2610	30.5
280	438	195.0	213.4	240.9	505	2680	1980	1340	329.8	438	2660	28.5
300	452	191.3	209.7	237.2	500	2550	1850	1190	311.7	452	2700	26.5
320	466	187.5	205.9	233.3	496	2400	1690	1020	293.6	466	2740	24.6
340	481	183.5	201.8	229.3	492	2200	1500	820	275.4	481	2780	22.6
360	487	176.7	195.9	224.6	487	1980	1280	580	257.2	487	2070	102.9
380	487	167.3	188.4	220.0	487	1570	930	290	237.9	487	1870	95.2
400	487	159.4	182.6	207.7	487	1320	680	20	218.7	487	1910	87.5



## BADA PERFORMANCE FILE

98/03/12

AC/Type: B757\_\_

Last BADA Revision: 3.0

Source OPF File: 3.0

98/03/12

Source APF file: 3.0

98/03/12

Speeds: CAS(LO/HI) Mach Mass Levels [kg] Temperature: ISA  
 climb - 250/290 0.78 low - 71520  
 cruise - 250/290 0.78 nominal - 95000 Max Alt. [ft]: 42000  
 descent - 250/290 0.78 high - 115600

FL	CRUISE				CLIMB				DESCENT			
	TAS	fuel			TAS	ROCD		fuel	TAS	ROCD	fuel	
	[kts]	[kg/min]			[kts]	[fpm]		[kg/min]	[kts]	[fpm]	[kg/min]	
		lo	nom	hi		lo	nom	hi		nom	nom	
0					162	2160	1980	1650	177.5	144	1260	18.4
5					163	2140	1960	1630	175.8	145	1270	18.3
10					165	2120	1940	1610	174.1	151	1250	18.3
15					171	2230	2020	1680	172.9	163	1230	18.3
20					172	2210	2000	1660	171.2	195	1220	18.2
30	261	43.1	53.1	64.3	196	2640	2310	1920	169.9	230	1300	18.2
40	265	43.2	53.2	64.4	230	3190	2690	2240	169.7	233	1320	18.1
60	272	43.3	53.5	64.7	272	3930	2910	2280	166.3	240	1350	18.0
80	280	43.5	53.7	65.1	280	3780	2780	2160	159.6	280	1530	17.9
100	289	43.6	53.9	65.4	289	3620	2650	2040	152.9	289	1570	17.7
120	344	51.8	59.8	68.7	344	3620	2690	2110	150.3	344	1920	17.6
140	354	51.9	60.0	69.0	354	3430	2520	1960	143.7	354	1950	17.5
160	365	52.1	60.3	69.3	365	3230	2360	1810	137.2	365	1980	17.4
180	376	52.2	60.5	69.7	376	3020	2180	1660	130.8	376	2010	17.2
200	387	52.3	60.7	70.0	387	2810	2010	1500	124.5	387	2040	17.1
220	399	52.4	60.9	70.4	399	2600	1830	1340	118.3	399	2070	17.0
240	412	52.5	61.1	70.7	412	2380	1650	1170	112.2	412	2100	16.9
260	424	52.6	61.4	71.1	424	2160	1460	1000	106.1	424	2130	16.7
280	438	52.7	61.6	71.5	438	1940	1280	830	100.1	438	2150	16.6
300	452	52.7	61.8	71.9	452	1720	1090	660	94.3	452	2180	16.5
320	455	51.2	60.9	71.6	455	2130	1280	680	87.9	455	3260	16.3
340	451	48.9	59.5	71.3	451	1880	1030	430	81.4	451	3150	16.2
360	447	47.0	58.6	71.6	447	1610	770	170	75.1	447	3060	16.1
380	447	45.6	58.4	66.3	447	1240	470	0	69.1	447	2790	16.0
400	447	44.7	58.8	60.6	447	980	210	0	63.2	447	2780	15.8

## BADA PERFORMANCE FILE

98/03/12

AC/Type: B767\_\_

Last BADA Revision: 3.0

Source OPF File: 3.0

Source APF file: 3.0

98/03/12

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Speeds: CAS(LO/HI) Mach Mass Levels [kg] Temperature: ISA  
 climb - 250/290 0.78 low - 107880  
 cruise - 250/310 0.80 nominal - 150000 Max Alt. [ft]: 43000  
 descent - 250/290 0.78 high - 181400

FL	CRUISE				CLIMB				DESCENT			
	TAS	fuel			TAS	ROCD			TAS	ROCD	fuel	
	[kts]	lo	nom	hi	[kts]	lo	nom	hi	[kg/min]	[fpm]	[kg/min]	
0					164	2240	1990	1680	251.7	152	1130	18.8
5					165	2230	1970	1660	249.4	153	1140	18.7
10					166	2210	1960	1640	247.1	159	1120	18.5
15					172	2330	2040	1710	245.6	171	1100	18.4
20					174	2310	2020	1690	243.3	203	1070	18.3
30	261	55.3	72.0	88.0	197	2770	2340	1960	241.9	230	1120	18.0
40	265	55.4	72.2	88.2	231	3360	2740	2310	242.0	233	1130	17.7
60	272	55.6	72.5	88.7	272	4240	3000	2370	237.6	240	1160	17.2
80	280	55.8	72.8	89.1	280	4100	2880	2260	228.4	280	1290	16.6
100	289	56.0	73.2	89.6	289	3950	2760	2150	219.3	289	1700	16.1
120	367	72.4	84.2	95.5	344	4040	2870	2280	215.8	344	2010	15.5
140	378	72.5	84.5	96.0	354	3840	2710	2130	206.6	354	2030	15.0
160	389	72.7	84.8	96.4	365	3640	2540	1990	197.4	365	2050	14.5
180	401	72.8	85.1	96.8	376	3430	2370	1830	188.2	376	2070	13.9
200	413	72.9	85.4	97.3	387	3210	2200	1670	179.1	387	2090	13.4
220	425	73.0	85.6	97.8	399	2990	2020	1510	169.9	399	2110	12.8
240	438	73.1	85.9	98.3	412	2750	1830	1330	160.7	412	2120	12.3
260	452	73.1	86.2	98.8	424	2510	1630	1160	151.6	424	2140	11.8
280	466	73.2	86.5	99.3	438	2270	1430	980	142.4	438	2150	11.2
300	471	71.2	85.3	98.7	452	2010	1230	790	133.2	452	2160	10.7
320	467	67.6	83.0	97.7	455	2490	1430	830	123.3	455	2980	10.1
340	463	64.5	81.4	97.5	451	2160	1130	530	113.0	451	2900	9.6
360	458	61.9	80.5	98.2	447	1820	820	210	102.9	447	2840	9.0
380	458	60.1	80.4	92.0	447	1360	450	0	93.1	447	2600	8.5
400	458	58.8	81.2	82.4	447	1030	140	0	83.3	447	2610	8.0

## BADA PERFORMANCE FILE

98/03/12

AC/Type: B777\_\_

Last BADA Revision: 3.0

Source OPF File: 3.0

Source APF file: 3.0

98/03/12

98/03/12

Speeds: CAS(LO/HI) Mach Mass Levels [kg] Temperature: ISA  
 climb - 250/290 0.84 low - 165600  
 cruise - 250/290 0.84 nominal - 211000 Max Alt. [ft]: 43100  
 descent - 250/280 0.84 high - 287000

FL	CRUISE				CLIMB				DESCENT			
	TAS	fuel			TAS	ROCD			TAS	ROCD	fuel	
	[kts]	lo	nom	hi	[kts]	lo	nom	hi	[kts]	[fpm]	[kg/min]	
0					157	2190	2060	1480	461.3	148	1210	42.0
5					158	2170	2030	1460	456.2	149	1220	41.7
10					159	2150	2010	1440	451.2	155	1210	41.4
15					166	2260	2100	1500	446.2	167	1180	41.1
20					167	2240	2070	1480	441.2	199	1160	40.8
30	261	106.4	127.7	174.9	190	2710	2420	1740	431.4	230	1230	40.2
40	265	106.4	127.7	174.9	225	3290	2840	2070	421.9	233	1250	39.6
60	272	106.3	127.7	175.0	272	4110	3150	2080	403.1	240	1290	38.4
80	280	106.2	127.6	175.1	280	3950	3010	1950	384.8	280	1470	37.2
100	289	106.0	127.6	175.3	289	3790	2870	1830	367.1	289	1510	36.0
120	344	121.3	137.4	173.2	344	3800	2920	1930	350.2	332	1480	34.8
140	354	120.9	137.1	173.2	354	3610	2750	1790	333.8	342	1530	33.6
160	365	120.5	136.8	173.1	365	3410	2590	1650	318.0	353	1580	32.4
180	376	120.0	136.5	173.0	376	3220	2420	1500	302.9	363	1630	31.2
200	387	119.6	136.2	172.9	387	3030	2260	1360	288.3	375	1680	30.0
220	399	119.1	135.8	172.9	399	2840	2090	1220	274.4	386	1730	28.8
240	412	118.6	135.4	172.8	412	2660	1930	1080	261.1	398	1780	27.6
260	424	118.0	135.0	172.7	424	2470	1780	940	248.5	411	1820	26.4
280	438	117.4	134.6	172.7	438	2300	1620	810	236.4	424	1870	25.2
300	452	116.7	134.1	172.6	452	2120	1470	680	225.0	437	1910	24.0
320	466	116.0	133.6	172.6	466	1960	1330	550	214.2	451	1950	22.8
340	481	115.3	133.1	172.6	481	1800	1190	420	204.1	466	2000	21.6
360	481	111.2	130.5	173.0	481	2460	1560	420	194.5	481	2030	20.4
380	481	107.1	128.2	175.0	481	2100	1270	190	185.6	481	2670	19.2
400	481	103.8	127.0	168.4	481	1970	1110	0	177.3	481	2660	18.0

BADA PERFORMANCE FILE										98/03/12		
AC/Type: BA11__					Last BADA Revision:		3.0					
					Source OPF File:		3.0		98/03/12			
					Source APF file:		3.0		98/03/12			
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA		
climb - 250/280				0.70	low - 27000							
cruise - 250/300				0.72	nominal - 31700			Max Alt. [ft]:		35000		
descent - 250/280				0.70	high - 39463							
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi		nom	nom	
0					150	2060	2070	1750	64.9	138	1000	10.8
5					151	2050	2060	1740	64.4	139	1010	10.8
10					152	2040	2050	1730	64.0	145	1010	10.7
15					158	2130	2130	1790	63.8	156	1030	10.7
20					160	2120	2110	1770	63.3	188	1130	10.7
30	261	22.4	23.9	27.0	183	2500	2400	2000	63.4	230	1430	10.6
40	265	22.4	24.0	27.1	217	2940	2720	2250	64.1	233	1450	10.6
60	272	22.5	24.1	27.2	272	3380	2900	2310	64.6	240	1480	10.4
80	280	22.6	24.2	27.4	280	3260	2790	2210	62.6	280	1880	10.3
100	289	22.7	24.3	27.5	289	3140	2680	2110	60.6	289	1920	10.2
120	356	30.8	32.0	34.4	332	2940	2520	1990	60.2	332	2450	10.1
140	366	30.9	32.1	34.5	342	2780	2370	1860	58.1	342	2490	10.0
160	377	31.0	32.2	34.6	353	2620	2220	1720	56.0	353	2530	9.8
180	388	31.1	32.3	34.8	363	2440	2060	1580	53.9	363	2570	9.7
200	400	31.2	32.4	34.9	375	2260	1900	1440	51.7	375	2610	9.6
220	412	31.2	32.5	35.0	386	2070	1730	1280	49.6	386	2650	9.5
240	425	31.3	32.6	35.2	398	1870	1550	1120	47.4	398	2690	9.4
260	431	30.4	31.8	34.5	411	1670	1360	950	45.1	411	2720	9.2
280	427	28.4	29.9	32.8	416	2010	1610	1080	42.6	416	2740	9.1
300	424	26.6	28.2	31.4	412	1850	1460	920	39.9	412	2590	9.0
320	420	25.0	26.7	30.3	408	1680	1290	750	37.1	408	2460	8.9
340	416	23.6	25.5	29.4	405	1480	1090	550	34.4	405	2360	8.8
360	413	22.3	24.4	28.7	401	1270	880	330	31.6	401	2290	8.6
380	412	21.4	23.7	27.8	401	970	610	80	29.0	401	2120	8.5
400	412	20.6	23.2	25.3	401	740	380	0	26.4	401	2110	8.4

BADA PERFORMANCE FILE										98/03/12		
AC/Type: BA46__					Last BADA Revision:		3.0					
					Source OPF File:		3.0		98/03/12			
					Source APF file:		3.0		98/03/12			
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA		
climb		- 250/280		0.60	low - 28680							
cruise		- 250/295		0.70	nominal - 36000			Max Alt. [ft]: 31000				
descent		- 250/280		0.60	high - 42200							
FL	CRUISE					CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom					hi
0					131	1940	1900	1690	55.2	123	910	17.0
5					132	1910	1870	1650	54.4	124	920	17.0
10					133	1870	1830	1620	53.7	130	910	17.0
15					139	1970	1900	1680	54.1	141	890	17.0
20					140	1940	1870	1640	53.3	173	890	17.0
30	261	23.0	25.5	28.0	163	2340	2170	1910	56.3	230	1140	16.9
40	265	23.2	25.7	28.3	197	2850	2550	2240	61.3	233	1160	16.9
60	272	23.6	26.2	28.9	272	3560	2880	2460	71.3	240	1190	16.9
80	280	24.1	26.7	29.5	280	3270	2630	2230	67.6	280	1490	16.8
100	289	24.6	27.3	30.1	289	2990	2390	2010	64.1	289	1530	16.8
120	350	35.6	37.9	40.2	332	2680	2140	1800	66.1	332	1930	16.7
140	360	36.2	38.6	41.0	342	2390	1890	1580	62.7	342	1970	16.7
160	371	36.9	39.3	41.8	353	2120	1660	1360	59.6	353	2010	16.7
180	382	37.6	40.1	42.6	363	1870	1450	1160	56.8	363	2040	16.6
200	394	38.3	40.9	43.5	368	2080	1580	1240	53.5	368	2500	16.6
220	406	39.0	41.6	44.4	365	1910	1420	1090	49.7	365	2370	16.5
240	418	39.7	42.4	45.2	362	1760	1280	940	46.5	362	2260	16.5
260	419	37.8	40.7	43.8	359	1640	1160	820	43.6	359	1350	16.4
280	416	35.3	38.5	41.7	356	1550	1050	710	41.3	356	1320	16.4
300	412	33.0	36.5	40.0	353	1470	970	610	39.4	353	1290	16.3
320	408	31.0	34.8	38.6	350	1420	900	530	37.9	350	1270	16.3
340	405	29.2	33.4	37.6	347	1390	850	450	36.9	347	1260	16.3
360	401	27.8	32.3	36.9	344	1380	810	390	36.3	344	1260	16.2
380	401	26.7	31.7	36.7	344	1340	760	330	36.3	344	1220	16.2
400	401	25.9	31.4	36.9	344	1380	750	290	36.8	344	1250	16.1

BADA PERFORMANCE FILE										98/03/12		
AC/Type: BE20__					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA	
climb		- 145/140		0.50	low		- 4392					
cruise		- 230/225		0.48	nominal		- 4994		Max Alt. [ft]:		32000	
descent		- 205/205		0.50	high		- 5670					
=====												
FL	CRUISE					CLIMB					DESCENT	
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi				
=====												
0					134	2180	2020	1820	2.6	105	410	1.9
5					145	2200	2020	1810	2.6	106	420	1.9
10					147	2200	2000	1790	2.6	112	420	1.8
15					148	2190	1980	1770	2.6	123	430	1.8
20					149	2170	1960	1740	2.6	155	590	1.8
30	240	2.1	2.1	2.2	151	2130	1920	1700	2.6	214	1460	1.8
40	244	2.1	2.1	2.2	154	2090	1880	1660	2.6	217	1490	1.7
60	251	2.1	2.2	2.3	158	2010	1800	1580	2.5	224	1550	1.7
80	258	2.2	2.2	2.3	163	1940	1730	1500	2.5	230	1610	1.6
100	266	2.2	2.3	2.3	168	1860	1650	1430	2.4	237	1670	1.5
120	268	2.1	2.2	2.3	168	1780	1560	1330	2.3	245	1740	1.4
140	276	2.2	2.2	2.3	173	1700	1490	1250	2.3	252	1800	1.4
160	285	2.2	2.3	2.4	179	1630	1410	1180	2.3	260	1870	1.3
180	294	2.3	2.3	2.4	184	1550	1340	1100	2.2	268	1570	1.2
200	294	2.1	2.2	2.3	191	1480	1260	1020	2.2	277	1630	1.1
220	292	2.0	2.1	2.2	197	1410	1190	940	2.2	286	1700	1.1
240	290	1.9	2.0	2.1	204	1340	1120	870	2.1	296	1770	1.0
260	287	1.8	1.9	2.0	211	1270	1040	790	2.1	299	2030	0.9
280	285	1.7	1.8	1.9	218	1200	970	720	2.1	297	1880	0.8
300	283	1.6	1.7	1.8	226	1140	900	640	2.1	294	1750	0.8
320	280	1.5	1.6	1.8	234	1070	840	570	2.0	292	1650	0.7
340	278	1.4	1.6	1.7	243	1010	770	500	2.0	289	1580	0.7
360	275	1.4	1.5	1.7	252	950	700	430	2.0	287	1520	0.6
380	275	1.4	1.5	1.7	263	1000	720	400	2.0	286	1460	0.6
400	275	1.3	1.5	1.7	275	950	660	330	2.0	286	1460	0.6

BADA PERFORMANCE FILE										98/03/12		
AC/Type: BE99__					Last BADA Revision: 3.0					98/03/12		
					Source OPF File: 3.0							
					Source APF file: 3.0							
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA	
climb - 140/140				0.35	low - 3600							
cruise - 210/210				0.35	nominal - 4100				Max Alt. [ft]:		15000	
descent - 170/170				0.35	high - 4700							
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]		
		lo	nom	hi		lo	nom	hi		nom	nom	
0					123	1640	1440	1250	4.6	93	210	1.5
5					134	1590	1360	1170	4.6	94	210	1.5
10					140	1540	1310	1160	4.6	100	230	1.5
15					143	1390	1270	1140	4.6	111	270	1.5
20					144	1380	1260	1120	4.5	142	500	1.4
30	219	4.4	4.4	4.4	146	1340	1220	1090	4.5	178	970	1.4
40	222	4.4	4.4	4.4	148	1310	1190	1060	4.4	180	990	1.4
60	226	4.3	4.3	4.3	153	1240	1120	990	4.3	186	650	1.5
80	225	4.1	4.2	4.2	158	1170	1050	920	4.2	191	710	1.5
100	223	3.8	3.9	4.1	163	1100	980	850	4.1	197	760	1.5
120	221	3.6	3.7	3.8	168	1030	910	780	4.1	203	820	1.4
140	220	3.3	3.4	3.6	173	960	840	710	4.0	210	870	1.4
160	218	3.1	3.2	3.4	179	890	770	640	3.9	216	930	1.4
180	216	2.9	3.1	3.2	184	810	700	570	3.8	216	960	1.3
200	215	2.7	2.9	3.1	191	740	630	500	3.7	215	880	1.3
220	213	2.6	2.7	3.0	197	670	560	430	3.6	213	820	1.3
240	211	2.5	2.6	2.9	204	590	480	350	3.5	211	770	1.2
260	210	2.3	2.5	2.8	210	580	460	310	3.4	210	740	1.2
280	208	2.2	2.4	2.7	208	570	440	290	3.3	208	710	1.2
300	206	2.1	2.4	2.7	206	560	420	260	3.2	206	690	1.1
320	204	2.1	2.3	2.6	204	540	390	220	3.1	204	680	1.1
340	202	2.0	2.3	2.6	202	500	350	160	3.0	202	690	1.0
360	201	2.0	2.3	2.7	201	460	300	100	2.9	201	700	1.0
380	200	2.0	2.3	2.6	200	400	230	10	2.8	200	730	1.0
400	200	2.0	2.4	2.5	200	340	150	0	2.7	200	770	0.9

BADA PERFORMANCE FILE										98/03/12			
AC/Type: BE9L__					Last BADA Revision: 3.0					98/03/12			
					Source OPF File: 3.0								
					Source APF file: 3.0								
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA		
climb - 150/130				0.40	low - 3252				Max Alt. [ft]: 31000				
cruise - 215/194				0.40	nominal - 3640								
descent - 210/210				0.40	high - 4581								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi					nom
0					123	2190	1980	1610	5.2	101	150	3.7	
5					134	2130	1900	1520	5.2	102	160	3.7	
10					140	2080	1830	1450	5.2	108	190	3.6	
15					153	1830	1690	1420	5.3	119	250	3.6	
20					154	1800	1670	1400	5.2	151	570	3.6	
30	224	4.7	4.7	4.9	157	1740	1610	1350	5.2	219	1970	3.5	
40	228	4.7	4.8	5.0	159	1680	1550	1290	5.1	222	2000	3.4	
60	234	4.8	4.9	5.1	164	1560	1440	1190	4.9	229	2080	3.3	
80	241	5.0	5.0	5.0	169	1450	1330	1080	4.7	236	2150	3.1	
100	249	4.9	4.9	4.9	174	1330	1210	970	4.6	243	2220	3.0	
120	232	4.0	4.1	4.3	156	1410	1280	1010	4.3	250	2300	2.8	
140	239	4.1	4.2	4.4	161	1300	1170	900	4.1	251	2430	2.7	
160	246	4.2	4.3	4.3	166	1180	1060	800	3.9	249	2240	2.5	
180	247	4.0	4.1	4.1	171	1070	950	690	3.8	247	2070	2.4	
200	245	3.7	3.8	3.9	177	950	840	590	3.6	245	1920	2.2	
220	243	3.5	3.6	3.7	183	840	730	480	3.5	243	1790	2.1	
240	241	3.2	3.4	3.5	189	730	620	370	3.3	241	1670	1.9	
260	239	3.0	3.1	3.3	196	610	510	270	3.2	239	1560	1.8	
280	237	2.8	3.0	3.1	203	500	400	160	3.0	237	1470	1.6	
300	235	2.7	2.8	2.9	210	390	290	60	2.9	235	1400	1.5	
320	233	2.5	2.7	2.7	218	280	180	0	2.7	233	1330	1.3	
340	231	2.4	2.5	2.5	226	170	70	0	2.6	231	1290	1.2	
360	229	2.3	2.3	2.3	229	90	0	0	2.4	229	1250	1.0	
380	229	2.1	2.1	2.1	229	20	0	0	2.2	229	1210	0.9	
400													



BADA PERFORMANCE FILE										98/03/12		
AC/Type: C130__					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA		
climb	-	160/160		0.56	low	-	38052					
cruise	-	220/220		0.61	nominal	-	58960	Max Alt. [ft]:		40000		
descent	-	220/210		0.56	high	-	81540					
=====												
FL	CRUISE					CLIMB					DESCENT	
	TAS	fuel			TAS	ROCD			fuel	TAS	ROCD	fuel
	[kts]	[kg/min]			[kts]	[fpm]			[kg/min]	[kts]	[fpm]	[kg/min]
		lo	nom	hi		lo	nom	hi	nom		nom	nom
=====												
0					150	3260	1980	1070	58.6	122	1430	18.1
5					161	3280	1960	1040	59.9	123	1440	18.0
10					162	3260	1930	1010	59.5	129	1440	17.8
15					164	3210	1900	980	59.2	140	1450	17.7
20					165	3170	1870	950	58.9	172	1620	17.6
30	230	34.3	40.4	50.0	167	3100	1810	890	58.2	230	2390	17.3
40	233	34.8	41.0	50.8	170	3020	1750	840	57.6	233	2420	17.1
60	240	35.8	42.3	52.4	175	2880	1630	720	56.4	240	2480	16.6
80	247	36.9	43.6	54.0	180	2730	1510	600	55.1	247	2540	16.1
100	254	38.0	44.9	55.8	186	2580	1390	490	53.9	254	2600	15.6
120	262	39.2	46.4	57.6	191	2440	1260	370	52.8	250	2460	15.1
140	270	40.4	47.8	59.5	197	2290	1140	250	51.7	258	2510	14.6
160	279	41.7	49.4	59.2	204	2150	1020	130	50.6	266	2570	14.1
180	288	43.0	51.0	58.6	210	2010	900	10	49.5	275	2630	13.6
200	297	44.3	52.6	57.9	217	1870	780	0	48.5	284	2700	13.1
220	306	45.7	54.4	57.4	225	1730	660	0	47.6	293	2760	12.6
240	316	47.2	56.2	56.9	232	1590	540	0	46.6	303	2820	12.1
260	327	48.7	56.4	56.4	240	1450	420	0	45.8	313	2880	11.6
280	338	50.2	56.1	56.1	249	1320	310	0	45.0	323	2940	11.1
300	349	51.9	55.8	55.8	257	1190	190	0	44.2	330	3570	10.6
320	356	51.6	54.8	54.8	266	1060	70	0	43.5	327	3440	10.1
340	353	48.0	52.2	52.2	276	940	0	0	42.9	324	3350	9.6
360	350	44.8	49.7	49.7	286	810	0	0	42.4	321	3280	9.1
380	349	42.5	47.6	47.6	299	800	0	0	42.2	321	3140	8.6
400	349	40.6	45.6	45.6	312	680	0	0	42.2	321	3160	8.1

BADA PERFORMANCE FILE										98/03/12	
AC/Type: C160__					Last BADA Revision: 3.0						
					Source OPF File: 3.0					98/03/12	
					Source APF file: 3.0					98/03/12	
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA	
climb - 150/140 0.36					low - 34800						
cruise - 160/160 0.38					nominal - 40000					Max Alt. [ft]: 30000	
descent - 180/180 0.50					high - 49150						
FL	CRUISE				CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi		nom	nom
0					130	1070	940	650	21.9	106	1010 7.6
5					141	1120	980	670	22.5	107	1020 7.6
10					147	1130	980	660	22.8	113	1010 7.6
15					153	1180	980	650	23.1	124	1000 7.6
20					154	1170	960	630	23.0	156	1070 7.6
30	167	10.2	11.6	14.6	157	1140	940	600	22.8	188	1290 7.6
40	170	10.3	11.8	14.8	159	1110	910	570	22.6	191	1310 7.6
60	175	10.6	12.1	15.2	164	1060	860	520	22.3	196	1340 7.6
80	180	10.9	12.4	15.6	169	1010	800	460	22.0	202	1380 7.6
100	186	11.2	12.7	16.1	174	950	750	400	21.7	209	1410 7.6
120	191	11.5	13.1	16.5	168	880	660	290	20.6	215	1450 7.6
140	197	11.8	13.5	17.0	173	820	600	230	20.3	222	1490 7.6
160	204	12.1	13.9	17.5	179	770	550	170	20.0	229	1530 7.6
180	210	12.5	14.3	18.0	184	720	500	110	19.8	236	1570 7.6
200	217	12.8	14.7	18.6	191	670	440	50	19.5	244	1610 7.6
220	225	13.2	15.1	19.1	197	620	390	0	19.3	252	1650 7.6
240	229	13.4	15.4	19.0	204	570	330	0	19.1	261	1690 7.6
260	227	13.3	15.4	18.3	211	520	280	0	19.0	269	1740 7.6
280	226	13.3	15.6	17.6	214	490	230	0	18.5	279	1780 7.6
300	224	13.3	15.9	16.9	212	400	120	0	17.8	288	1820 7.6
320	222	13.5	16.2	16.2	210	300	0	0	17.0	292	2140 7.6
340	220	13.8	15.5	15.5	208	180	0	0	16.2	289	2100 7.6
360	218	14.2	14.8	14.8	206	50	0	0	15.5	287	2090 7.6
380											
400											

BADA PERFORMANCE FILE										98/03/12		
AC/Type: C421__					Last BADA Revision: 3.0							
					Source OPF File: 3.0		98/03/12					
					Source APF file: 3.0		98/03/12					
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA		
climb - 121/121				0.45	low - 2729							
cruise - 170/160				0.45	nominal - 2840			Max Alt. [ft]:		23500		
descent - 173/173				0.45	high - 3085							
=====												
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi		nom	nom	
=====												
0					110	1260	1170	1000	2.7	86	470	1.0
5					121	1250	1130	960	2.7	91	470	1.0
10					123	1230	1120	950	2.7	102	510	1.0
15					124	1190	1110	940	2.7	177	1780	1.0
20					125	1180	1100	940	2.7	178	1800	1.0
30	178	2.7	2.7	2.7	126	1150	1080	920	2.7	181	1830	1.0
40	180	2.7	2.7	2.7	128	1130	1050	890	2.7	183	950	1.0
60	186	2.7	2.7	2.7	132	1090	1010	850	2.7	189	1020	1.0
80	191	2.7	2.7	2.7	136	1040	960	810	2.7	195	1090	1.0
100	197	2.7	2.7	2.7	141	990	920	760	2.7	201	1170	1.0
120	191	2.7	2.7	2.7	145	940	860	710	2.7	207	1250	1.0
140	197	2.7	2.7	2.7	150	880	810	660	2.7	213	1330	1.0
160	204	2.7	2.7	2.7	155	830	750	600	2.7	220	1410	1.0
180	210	2.7	2.7	2.7	160	760	690	540	2.7	227	1500	1.0
200	217	2.7	2.7	2.7	165	700	630	480	2.7	235	1590	1.0
220	225	2.7	2.7	2.7	171	630	560	410	2.7	243	1680	1.0
240	232	2.7	2.7	2.7	176	560	490	340	2.7	251	1780	1.0
260	240	2.7	2.7	2.7	183	480	410	270	2.7	259	1880	1.0
280	249	2.7	2.7	2.7	189	400	330	190	2.7	267	2220	1.0
300	257	2.7	2.7	2.7	196	310	250	110	2.7	265	2020	1.0
320	263	2.7	2.7	2.7	203	220	160	30	2.7	263	1840	1.0
340	260	2.7	2.7	2.7	211	120	60	0	2.7	260	1700	1.0
360	258	2.7	2.7	2.7	219	20	0	0	2.7	258	1570	1.0
380												
400												

BADA PERFORMANCE FILE										98/03/12		
AC/Type: C550__					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA	
climb -		220/220		0.63	low -		4020					
cruise -		220/220		0.63	nominal -		6000		Max Alt. [ft]:		43000	
descent -		250/250		0.64	high -		6025					
=====												
FL	CRUISE					CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom					hi
=====												
0					122	2350	1960	1950	10.3	114	1370	4.2
5					123	2340	1940	1940	10.2	115	1380	4.2
10					124	2330	1930	1920	10.2	121	1380	4.2
15					130	2510	2050	2040	10.5	132	1380	4.2
20					131	2490	2030	2020	10.5	164	1530	4.2
30	230	6.2	7.1	7.1	154	3140	2450	2450	11.7	230	2440	4.2
40	233	6.3	7.2	7.2	188	3880	2890	2880	13.6	233	2470	4.2
60	240	6.4	7.4	7.4	240	4470	3040	3030	16.2	240	2530	4.1
80	247	6.6	7.6	7.6	247	4310	2910	2900	16.1	280	3360	4.1
100	254	6.7	7.8	7.8	254	4150	2780	2760	15.9	289	3430	4.1
120	262	6.9	7.9	8.0	262	3970	2630	2620	15.7	297	3500	4.0
140	270	7.1	8.2	8.2	270	3780	2480	2470	15.4	306	3570	4.0
160	279	7.2	8.4	8.4	279	3580	2320	2310	15.2	316	3640	4.0
180	288	7.4	8.6	8.6	288	3370	2150	2140	15.0	326	3710	4.0
200	297	7.6	8.8	8.8	297	3150	1970	1960	14.7	336	3770	3.9
220	306	7.8	9.0	9.1	306	2910	1790	1770	14.4	347	3840	3.9
240	316	8.0	9.3	9.3	316	2670	1590	1580	14.1	358	3900	3.9
260	327	8.2	9.5	9.5	327	2410	1380	1370	13.7	369	2240	5.4
280	338	8.4	9.8	9.8	338	2140	1170	1160	13.3	380	2980	5.2
300	349	8.6	10.1	10.1	349	1860	940	930	12.9	377	2800	4.9
320	361	8.9	10.3	10.3	361	1560	700	690	12.5	373	2660	4.5
340	364	8.6	10.1	10.2	364	1730	660	650	11.8	370	2550	4.2
360	361	8.0	9.7	9.7	361	1550	470	460	10.8	367	2480	3.9
380	361	7.5	9.4	9.4	361	1280	240	230	10.0	367	2340	3.6
400	361	7.1	8.7	8.7	361	1050	0	0	9.2	367	2360	3.6

BADA PERFORMANCE FILE										98/03/12	
AC/Type: C560__					Last BADA Revision: 3.0						
					Source OPF File: 3.0		98/03/12				
					Source APF file: 3.0		98/03/12				
Speeds:		CAS(LO/HI)	Mach	Mass Levels [kg]	Temperature:		ISA				
climb		- 250/250	0.55	low - 6000							
cruise		- 200/200	0.73	nominal - 6340	Max Alt. [ft]:		45000				
descent		- 200/200	0.75	high - 7210							
FL	CRUISE				CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi		nom	nom
0					113	1670	1890	1730	11.3	108	1090 6.0
5					114	1650	1860	1700	11.2	108	1100 6.0
10					115	1620	1830	1670	11.2	114	1090 6.0
15					121	1750	1940	1780	11.5	125	1070 6.0
20					121	1730	1920	1750	11.4	157	1100 5.9
30	209	5.9	5.9	5.9	144	2220	2350	2150	12.7	209	1440 5.9
40	212	5.9	5.9	5.9	178	2800	2860	2630	14.8	212	1460 5.9
60	218	5.8	5.8	5.8	272	3530	3390	3060	20.3	218	1500 5.8
80	225	5.7	5.7	5.9	280	3300	3160	2840	19.7	225	1530 5.7
100	232	5.7	5.7	6.0	289	3070	2940	2630	19.1	232	1570 5.7
120	239	5.6	5.6	6.2	297	2840	2710	2420	18.5	239	1610 5.6
140	246	5.6	5.8	6.4	306	2620	2490	2210	18.0	246	1650 5.6
160	254	5.7	5.9	6.6	316	2390	2280	2000	17.4	254	1690 5.5
180	262	5.9	6.1	6.7	326	2180	2060	1800	16.9	262	1740 5.4
200	271	6.0	6.3	6.9	336	1960	1860	1600	16.4	271	1780 5.4
220	279	6.2	6.4	7.1	335	2190	2060	1760	15.4	279	1820 5.3
240	289	6.4	6.6	7.3	332	2020	1890	1590	14.4	289	1860 5.2
260	298	6.5	6.8	7.6	329	1860	1730	1420	13.5	298	1910 5.2
280	308	6.7	7.0	7.8	326	1700	1570	1250	12.6	308	1950 5.1
300	319	6.9	7.2	8.0	324	1540	1410	1090	11.9	319	2000 5.0
320	330	7.1	7.4	8.3	321	1390	1260	920	11.2	330	2040 5.0
340	341	7.4	7.7	8.5	318	1240	1100	760	10.5	341	2080 4.9
360	353	7.6	7.9	8.8	315	1100	950	590	10.0	353	2130 4.9
380	369	7.9	8.2	9.1	315	920	770	410	9.5	369	2640 4.8
400	385	8.2	8.5	9.5	315	790	640	250	9.2	385	2750 4.7

BADA PERFORMANCE FILE										98/03/12		
AC/Type: CARJ__					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature: ISA			
climb - 250/290				0.74	low - 17760							
cruise - 250/290				0.74	nominal - 21000				Max Alt. [ft]: 41000			
descent - 250/290				0.74	high - 23995							
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi	nom		nom	nom
0					151	2590	2640	2450	28.9	145	1000	5.6
5					152	2570	2610	2420	28.6	146	1000	5.6
10					153	2540	2580	2390	28.4	152	1020	5.6
15					160	2640	2650	2450	28.7	164	1040	5.6
20					161	2610	2620	2420	28.4	196	1190	5.6
30	261	11.6	12.4	13.2	184	3000	2910	2670	30.2	230	1470	5.6
40	265	11.7	12.5	13.3	218	3460	3240	2940	32.9	233	1490	5.6
60	272	11.9	12.7	13.6	272	3890	3360	2980	36.4	240	1520	5.6
80	280	12.2	13.0	13.9	280	3660	3160	2790	35.2	280	1940	5.6
100	289	12.4	13.3	14.2	289	3430	2950	2590	33.9	289	1980	5.6
120	344	17.4	18.2	19.0	344	3050	2620	2310	36.5	344	2100	5.6
140	354	17.8	18.5	19.3	354	2770	2370	2080	35.2	354	2170	5.6
160	365	18.1	18.9	19.7	365	2500	2130	1850	33.8	365	2240	5.6
180	376	18.4	19.2	20.1	376	2230	1880	1620	32.5	376	2300	5.6
200	387	18.8	19.6	20.5	387	1960	1640	1390	31.2	387	2370	5.6
220	399	19.1	20.0	20.9	399	1690	1390	1160	29.9	399	2430	5.6
240	412	19.5	20.3	21.3	412	1430	1150	940	28.6	412	2490	5.6
260	424	19.8	20.7	21.7	424	1170	920	720	27.4	424	2550	5.6
280	438	20.2	21.1	22.1	438	920	690	510	26.1	438	2610	5.6
300	436	18.9	19.9	21.0	436	1120	810	560	24.2	436	3350	5.6
320	432	17.5	18.7	19.8	432	990	680	420	22.3	432	3150	5.6
340	428	16.4	17.6	18.9	428	860	550	280	20.5	428	2980	5.6
360	424	15.4	16.7	17.9	424	730	410	130	18.9	424	2830	5.6
380	424	14.6	16.1	16.6	424	550	240	0	17.4	424	2540	5.6
400	424	14.0	15.3	15.3	424	410	90	0	16.1	424	2480	5.6

BADA PERFORMANCE FILE										98/03/12		
AC/Type: CL60__					Last BADA Revision:		3.0					
					Source OPF File:		3.0		98/03/12			
					Source APF file:		3.0		98/03/12			
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA		
climb		- 250/250		0.70	low		- 11148					
cruise		- 250/280		0.77	nominal		- 15450		Max Alt. [ft]:		41000	
descent		- 250/250		0.70	high		- 20230					
FL	CRUISE					CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom					hi
0					139	2600	2330	1880	38.8	139	1030	12.0
5					140	2590	2320	1860	38.5	140	1040	12.0
10					141	2580	2310	1850	38.2	146	1050	12.0
15					147	2730	2410	1930	37.9	157	1060	12.0
20					148	2720	2400	1910	37.6	189	1170	12.0
30	261	12.0	12.0	14.0	171	3280	2780	2210	37.4	230	1470	12.0
40	265	12.0	12.0	14.0	205	3980	3240	2560	37.3	233	1480	12.0
60	272	12.0	12.0	14.1	272	5050	3680	2760	37.0	240	1520	12.0
80	280	12.0	12.0	14.1	280	4900	3570	2660	35.8	280	1920	12.0
100	289	12.0	12.0	14.1	289	4750	3440	2550	34.6	289	1970	12.0
120	332	12.8	14.0	15.7	297	4580	3310	2440	33.3	297	2010	12.0
140	342	12.8	14.0	15.7	306	4410	3170	2320	32.1	306	2050	12.0
160	353	12.8	14.0	15.7	316	4230	3020	2190	30.8	316	2090	12.0
180	363	12.8	14.0	15.8	326	4040	2870	2060	29.6	326	2130	12.0
200	375	12.8	14.0	15.8	336	3840	2710	1920	28.3	336	2170	12.0
220	386	12.8	14.0	15.8	347	3620	2540	1770	27.1	347	2210	12.0
240	398	12.8	14.0	15.8	358	3400	2360	1620	25.9	358	2250	12.0
260	411	12.7	14.0	15.8	369	3170	2180	1460	24.6	369	2290	12.0
280	424	12.7	14.0	15.9	381	2930	1990	1290	23.4	381	2330	12.0
300	437	12.7	14.0	15.9	394	2690	1790	1120	22.1	394	2360	12.0
320	449	12.6	13.9	15.8	407	2430	1580	940	20.9	407	1620	12.0
340	445	12.0	13.1	15.3	405	2960	1860	1010	19.5	405	2100	12.0
360	441	12.0	12.5	14.8	401	2680	1610	770	18.1	401	2050	12.0
380	441	12.0	12.0	14.6	401	2250	1270	470	16.8	401	1910	12.0
400	441	12.0	12.0	14.4	401	1970	1010	200	15.4	401	1920	12.0

BADA PERFORMANCE FILE										98/03/12			
AC/Type: D228__					Last BADA Revision: 3.0					98/03/12			
					Source OPF File: 3.0								
					Source APF file: 3.0								
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA			
climb - 165/165 0.32					low - 4488					Max Alt. [ft]: 29600			
cruise - 180/180 0.34					nominal - 5600								
descent - 165/165 0.32					high - 6400								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]				TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi	lo		nom	hi	nom				
0						125	2690	2130	1840	13.2	104	400	6.4
5						136	2580	1980	1680	13.3	105	410	6.4
10						142	2500	1880	1580	13.3	110	460	6.4
15						169	1610	1360	1220	13.6	121	580	6.4
20						170	1580	1340	1190	13.5	153	1100	6.4
30	188	9.5	9.9	10.2		172	1520	1280	1130	13.4	172	1540	6.4
40	191	9.7	10.0	10.4		175	1460	1220	1080	13.3	175	630	6.4
60	196	9.9	10.3	10.6		180	1340	1110	970	13.1	180	710	6.4
80	202	10.2	10.6	11.0		186	1220	1000	860	12.8	186	800	6.4
100	209	10.5	10.9	11.3		191	1090	880	750	12.6	191	880	6.4
120	215	10.8	11.2	11.6		197	970	770	640	12.4	197	970	6.4
140	214	10.0	10.5	10.9		201	970	760	620	12.1	201	1060	6.4
160	212	9.3	9.8	10.2		199	1040	810	660	11.8	199	950	6.4
180	210	8.7	9.2	9.7		198	1100	850	690	11.5	198	860	6.4
200	209	8.1	8.7	9.1		196	1140	880	710	11.1	196	780	6.4
220	207	7.5	8.2	8.7		195	1170	890	710	10.8	195	710	6.4
240	205	7.0	7.7	8.3		193	1180	890	700	10.5	193	660	6.4
260	204	6.6	7.3	8.0		192	1180	880	680	10.1	192	620	6.4
280	202	6.4	7.0	7.7		190	1170	850	640	9.8	190	600	6.4
300	200	6.4	6.8	7.5		188	1150	820	590	9.5	188	590	6.4
320	198	6.4	6.5	7.3		187	1120	760	530	9.1	187	590	6.4
340	197	6.4	6.4	7.3		185	1070	700	450	8.8	185	610	6.4
360	195	6.4	6.4	7.2		183	1010	630	360	8.5	183	640	6.4
380	195	6.4	6.4	7.3		183	920	520	240	8.2	183	680	6.4
400	195	6.4	6.4	7.5		183	840	410	110	7.9	183	750	6.4



BADA PERFORMANCE FILE										98/03/12			
AC/Type: D328__					Last BADA Revision: 3.0					98/03/12			
					Source OPF File: 3.0								
					Source APF file: 3.0								
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA		
climb -		180/180		0.59	low - 10572				Max Alt. [ft]: 32800				
cruise -		250/270		0.59	nominal - 12000								
descent -		250/270		0.59	high - 13640								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]				TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi	nom		nom	nom	
0					162	2680	2380	2110	13.0	122	580	7.3	
5					173	2620	2290	2030	13.1	123	590	7.3	
10					179	2570	2230	2000	13.1	129	610	7.3	
15					184	2370	2180	1980	13.1	140	640	7.3	
20					185	2340	2150	1950	13.0	172	850	7.3	
30	261	9.5	9.7	10.1	188	2290	2100	1900	12.9	230	1620	7.3	
40	265	9.6	9.9	10.2	191	2240	2050	1850	12.8	233	1650	7.3	
60	272	9.9	10.1	10.5	196	2130	1950	1750	12.6	240	1700	7.3	
80	280	10.1	10.4	10.8	202	2030	1850	1650	12.4	280	2440	7.3	
100	289	10.4	10.7	11.1	209	1930	1740	1550	12.1	289	2510	7.3	
120	321	12.7	12.7	12.7	215	1820	1640	1440	11.9	321	1910	7.3	
140	330	12.6	12.6	12.6	222	1720	1540	1340	11.7	330	2000	7.3	
160	340	12.4	12.4	12.4	229	1610	1430	1240	11.5	340	2090	7.3	
180	351	12.3	12.3	12.3	236	1510	1330	1130	11.3	351	2180	7.3	
200	362	12.1	12.1	12.1	244	1400	1220	1030	11.1	362	2270	7.3	
220	359	11.8	11.8	11.8	252	1300	1120	920	10.9	359	2530	7.3	
240	356	11.5	11.5	11.5	261	1190	1020	820	10.7	356	2280	7.3	
260	353	11.2	11.2	11.2	269	1090	910	710	10.6	353	2060	7.3	
280	350	10.7	10.8	10.8	279	980	810	610	10.4	350	1860	7.3	
300	347	9.9	10.4	10.5	288	880	700	500	10.2	347	1690	7.3	
320	344	9.3	9.8	10.2	298	780	600	400	10.1	344	1550	7.3	
340	341	8.7	9.3	9.8	309	670	500	290	9.9	341	1440	7.3	
360	338	8.2	8.8	9.5	320	570	390	190	9.8	338	1350	7.3	
380	338	7.9	8.6	9.2	334	550	340	90	9.7	338	1250	7.3	
400	338	7.6	8.4	8.9	338	510	280	20	9.4	338	1230	7.3	

BADA PERFORMANCE FILE										98/03/12	
AC/Type: DC10__				Last BADA Revision: 3.0							
				Source OPF File: 3.0		98/03/12					
				Source APF file: 3.0		98/03/12					
Speeds:		CAS(LO/HI)		Mach		Mass Levels [kg]		Temperature:		ISA	
climb - 250/320				0.82		low - 145200					
cruise - 250/330				0.82		nominal - 170000		Max Alt. [ft]:		39000	
descent - 250/320				0.82		high - 250000					
FL	CRUISE				CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi		nom	nom
0					169	2060	2080	1490	322.7	148	960 53.1
5					170	2050	2060	1480	320.3	149	970 52.5
10					171	2040	2050	1460	317.8	155	960 52.0
15					178	2130	2120	1510	317.1	167	950 51.4
20					179	2120	2110	1490	314.6	199	960 50.8
30	261	79.1	88.7	130.1	202	2460	2380	1680	316.3	230	1040 49.7
40	265	79.4	89.0	130.6	237	2900	2710	1830	321.2	233	1060 48.5
60	272	79.9	89.6	131.6	272	3390	2870	1760	319.7	240	1080 46.2
80	280	80.4	90.2	132.7	280	3290	2780	1680	309.7	280	1260 44.0
100	289	80.9	90.9	133.8	289	3190	2690	1600	299.7	289	1280 41.7
120	390	118.2	124.6	152.0	379	3290	2810	1790	311.1	379	1910 39.4
140	401	118.8	125.2	153.1	390	3140	2670	1680	300.7	390	1940 37.1
160	413	119.3	125.9	154.2	401	2980	2530	1560	290.2	401	1970 34.8
180	425	119.8	126.5	155.4	413	2820	2380	1440	279.7	413	1990 32.5
200	438	120.3	127.1	156.5	425	2640	2220	1320	269.0	425	2020 30.3
220	451	120.8	127.7	157.7	438	2470	2070	1190	258.4	438	2040 28.0
240	464	121.2	128.3	159.0	451	2290	1900	1060	247.6	451	2070 25.7
260	478	121.6	128.9	160.2	465	2100	1740	930	236.7	465	2090 23.4
280	487	119.4	127.0	159.7	479	1910	1570	790	225.7	479	2110 21.1
300	483	112.4	120.7	156.4	483	2530	2050	940	212.8	483	2950 18.8
320	478	106.3	115.4	154.4	478	2310	1840	730	198.7	478	2810 16.6
340	474	101.1	111.0	153.7	474	2090	1620	510	184.7	474	2690 14.3
360	470	96.7	107.6	154.4	470	1840	1390	270	171.0	470	2590 12.0
380	470	93.5	105.5	150.1	470	1450	1040	20	158.0	470	2310 9.7
400	470	91.2	104.3	137.8	470	1220	810	0	145.1	470	2290 7.4

BADA PERFORMANCE FILE										98/03/12	
AC/Type: DC8____					Last BADA Revision: 3.0						
					Source OPF File: 3.0		98/03/12				
					Source APF file: 3.0		98/03/12				
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA	
climb - 250/300				0.78	low - 82800						
cruise - 250/300				0.80	nominal - 110000			Max Alt. [ft]:		42000	
descent - 250/300				0.80	high - 152000						
FL	CRUISE				CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi		nom	nom
0					151	2150	2000	1580	179.0	132	710
5					152	2140	1990	1570	177.7	133	720
10					153	2130	1980	1560	176.4	139	710
15					159	2230	2050	1610	176.5	151	710
20					160	2220	2040	1600	175.2	183	750
30	261	66.1	66.1	66.1	183	2610	2310	1800	177.9	230	940
40	265	64.8	64.8	64.8	218	3100	2640	2030	183.1	233	950
60	272	62.2	62.2	64.1	272	3840	2930	2080	189.2	240	970
80	280	59.6	59.6	64.7	280	3740	2840	2010	183.8	280	1210
100	289	57.0	57.0	65.3	289	3620	2750	1930	178.3	289	1230
120	356	65.0	69.7	79.5	356	3570	2730	1960	184.8	356	1780
140	366	65.5	70.2	80.2	366	3410	2600	1850	179.0	366	1810
160	377	65.9	70.8	80.9	377	3240	2460	1740	173.0	377	1840
180	388	66.4	71.3	81.7	388	3060	2320	1620	166.9	388	1860
200	400	66.8	71.9	82.4	400	2880	2160	1490	160.7	400	1890
220	412	67.3	72.4	83.2	412	2680	2010	1370	154.4	412	1910
240	425	67.7	72.9	84.0	425	2480	1840	1230	148.0	425	1940
260	438	68.1	73.5	84.8	438	2270	1670	1090	141.3	438	1960
280	452	68.5	74.0	85.6	452	2060	1500	950	134.6	452	1980
300	466	68.8	74.5	86.4	459	2620	1880	1140	126.8	466	1990
320	467	65.2	71.3	84.1	455	2410	1690	970	117.5	467	2710
340	463	60.7	67.3	81.2	451	2180	1500	780	108.3	463	2540
360	458	56.6	63.8	79.1	447	1940	1280	580	99.2	458	2400
380	458	53.3	61.3	78.0	447	1560	980	340	90.5	458	2110
400	458	50.5	59.2	77.7	447	1320	760	120	81.8	458	2040

BADA PERFORMANCE FILE										98/03/12		
AC/Type: DC9____					Last BADA Revision: 3.0							
					Source OPF File: 3.0		98/03/12					
					Source APF file: 3.0		98/03/12					
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA		
climb - 250/320				0.74	low - 32400							
cruise - 250/340				0.80	nominal - 45400			Max Alt. [ft]:		35000		
descent - 250/250				0.76	high - 51700							
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi		nom	nom	
0					151	2100	1810	1590	95.8	135	1290	16.1
5					152	2080	1800	1570	94.9	136	1300	16.1
10					153	2060	1780	1550	94.0	142	1290	16.1
15					159	2180	1850	1620	93.5	153	1280	16.1
20					160	2160	1830	1600	92.7	185	1310	16.0
30	261	33.7	39.7	43.4	183	2620	2140	1870	92.5	230	1560	16.0
40	265	33.8	39.8	43.5	218	3160	2480	2170	93.1	233	1580	16.0
60	272	33.9	40.0	43.7	272	3790	2670	2280	93.0	240	1620	15.9
80	280	34.0	40.2	43.9	280	3630	2530	2150	89.6	280	1970	15.9
100	289	34.2	40.4	44.2	289	3470	2400	2020	86.2	289	2010	15.8
120	402	58.4	62.1	64.4	379	2860	1990	1690	87.9	297	2050	15.8
140	413	58.5	62.3	64.6	390	2630	1810	1520	84.5	306	2100	15.7
160	425	58.6	62.4	64.7	401	2390	1620	1350	81.2	316	2140	15.7
180	438	58.6	62.5	64.9	413	2160	1430	1170	77.9	326	2180	15.6
200	450	58.7	62.7	65.1	425	1920	1240	1000	74.7	336	2230	15.5
220	464	58.7	62.7	65.2	438	1690	1050	820	71.5	347	2270	15.5
240	478	58.7	62.8	65.3	447	2060	1230	920	68.2	358	2310	15.4
260	479	55.6	60.0	62.7	443	2000	1160	840	64.4	369	520	31.3
280	475	51.6	56.4	59.3	439	1930	1070	740	60.7	381	630	29.8
300	471	47.9	53.1	56.3	436	1830	960	620	57.1	394	740	28.4
320	467	44.6	50.3	53.8	432	1720	830	480	53.6	407	840	26.9
340	463	41.6	47.9	51.3	428	1580	680	320	50.3	420	950	25.6
360	458	38.9	45.8	48.0	424	1440	510	140	47.0	434	1060	24.2
380	458	36.8	44.4	44.9	424	1180	310	0	44.0	435	1410	22.7
400	458	35.0	41.9	41.9	424	1020	120	0	41.0	435	1480	21.1

BADA PERFORMANCE FILE										98/03/12			
AC/Type: DHC8__					Last BADA Revision: 3.0					98/03/12			
					Source OPF File: 3.0					98/03/12			
					Source APF file: 3.0					98/03/12			
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA		
climb -		165/165		0.33	low -		14760						
cruise -		245/245		0.45	nominal -		17000		Max Alt. [ft]: 25000				
descent -		230/230		0.51	high -		19500						
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi	nom		nom	nom	
0					144	2320	2020	1760	17.7	102	820	3.1	
5					155	2260	1950	1680	17.0	103	830	3.1	
10					161	2210	1890	1640	16.6	109	820	3.1	
15					169	2030	1820	1610	16.0	120	820	3.1	
20					170	1990	1790	1580	15.8	152	900	3.1	
30	256	8.3	8.5	8.9	172	1930	1720	1520	15.4	230	1720	3.1	
40	259	8.2	8.5	8.9	175	1860	1660	1450	15.0	233	1740	3.1	
60	267	8.1	8.4	8.7	180	1740	1540	1330	14.3	240	1780	3.1	
80	275	8.0	8.2	8.6	186	1610	1410	1210	13.5	258	2010	3.1	
100	283	7.8	8.1	8.2	191	1480	1280	1080	12.7	266	2060	3.1	
120	285	7.5	7.7	7.8	197	1350	1160	950	12.0	274	2110	3.1	
140	283	7.1	7.4	7.6	204	1210	1030	830	11.2	282	2160	3.1	
160	280	6.7	7.0	7.3	206	1200	1000	780	10.6	291	2210	3.1	
180	278	6.4	6.8	7.1	204	1110	900	680	10.2	300	2260	3.1	
200	276	6.1	6.5	6.8	202	1020	800	570	9.8	310	2310	3.1	
220	274	5.8	6.3	6.6	201	920	700	450	9.3	310	2610	3.1	
240	272	5.6	6.1	6.3	199	810	580	320	8.9	308	2460	3.1	
260	269	5.4	6.0	6.1	198	700	450	180	8.4	305	2330	3.1	
280	267	5.3	5.8	5.8	196	570	320	30	7.9	303	2220	3.1	
300	265	5.2	5.5	5.5	194	440	170	0	7.5	300	2130	3.1	
320	263	5.1	5.2	5.2	193	290	10	0	7.0	298	2050	3.1	
340	260	4.9	4.9	4.9	191	140	0	0	6.5	295	2000	3.1	
360													
380													
400													

BADA PERFORMANCE FILE										98/03/12		
AC/Type: E120__					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA		
climb - 150/150 0.37					low - 9600							
cruise - 240/225 0.47					nominal - 10000					Max Alt. [ft]: 32000		
descent - 250/250 0.52					high - 11500							
FL	CRUISE				CLIMB				DESCENT			
	TAS	fuel			TAS	ROCD		fuel	TAS	ROCD	fuel	
	[kts]	lo	nom	hi	[kts]	lo	nom	hi	[kts]	[fpm]	[kg/min]	
0					134	2470	2530	2380	11.4	112	910	6.6
5					145	2530	2570	2400	11.8	113	920	6.5
10					151	2530	2560	2360	11.9	119	930	6.5
15					153	2590	2530	2320	11.8	130	950	6.4
20					154	2550	2490	2280	11.7	162	1130	6.3
30	250	6.9	7.0	7.3	157	2470	2420	2200	11.5	230	2060	6.2
40	254	7.0	7.1	7.4	159	2390	2340	2130	11.3	233	2090	6.0
60	261	7.2	7.3	7.6	164	2240	2180	1970	10.9	240	2140	5.7
80	269	7.4	7.5	7.8	169	2090	2030	1820	10.5	280	2920	5.4
100	277	7.6	7.7	8.0	174	1940	1880	1670	10.1	289	2980	5.1
120	268	6.7	6.8	7.1	180	1790	1740	1520	9.8	297	3040	4.8
140	276	6.9	7.0	7.3	185	1650	1590	1380	9.4	306	3100	4.5
160	285	7.1	7.1	7.5	191	1500	1450	1230	9.1	316	3160	4.3
180	291	7.1	7.2	7.5	197	1360	1310	1090	8.7	322	3640	4.0
200	288	6.6	6.7	7.2	204	1230	1170	950	8.4	319	3400	3.7
220	286	6.2	6.4	6.8	211	1090	1040	810	8.1	316	3170	3.4
240	284	5.9	6.0	6.5	218	960	900	680	7.8	314	2980	3.1
260	281	5.6	5.7	6.3	222	890	820	570	7.3	311	2800	2.8
280	279	5.4	5.5	6.1	220	670	600	340	6.6	309	2640	2.5
300	277	5.1	5.3	5.9	218	450	380	90	5.9	306	2510	2.2
320	274	5.0	5.1	5.8	216	210	140	0	5.2	303	2400	1.9
340												
360												
380												
400												

BADA PERFORMANCE FILE										98/03/12	
AC/Type: F100__					Last BADA Revision: 3.0						
					Source OPF File: 3.0					98/03/12	
					Source APF file: 3.0					98/03/12	
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA	
climb - 250/280 0.70					low - 29520						
cruise - 250/280 0.70					nominal - 38000					Max Alt. [ft]: 35000	
descent - 250/280 0.70					high - 43090						
FL	CRUISE				CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi		nom	nom
0					148	2210	2120	1940	94.9	139	1000
5					149	2180	2090	1910	93.6	140	1000
10					150	2150	2060	1880	92.2	146	1010
15					156	2240	2120	1940	90.9	157	1020
20					157	2220	2090	1900	89.6	189	1110
30	261	27.9	31.1	33.4	180	2590	2360	2140	87.0	230	1350
40	265	27.9	31.0	33.3	215	3060	2660	2410	84.4	233	1370
60	272	27.8	31.0	33.3	272	3560	2810	2480	79.5	240	1400
80	280	27.7	31.0	33.3	280	3330	2620	2290	74.8	280	1740
100	289	27.7	30.9	33.2	289	3100	2420	2110	70.4	289	1780
120	332	32.3	34.9	36.7	332	2810	2190	1910	66.2	332	2230
140	342	32.1	34.7	36.6	342	2560	1980	1720	62.2	342	2260
160	353	32.0	34.6	36.5	353	2320	1780	1530	58.4	353	2300
180	363	31.9	34.5	36.4	363	2090	1580	1340	54.9	363	2330
200	375	31.7	34.4	36.3	375	1860	1390	1160	51.6	375	2370
220	386	31.5	34.2	36.1	386	1650	1210	990	48.5	386	2400
240	398	31.3	34.0	36.0	398	1450	1030	830	45.7	398	2430
260	411	31.1	33.9	35.8	411	1260	870	680	43.1	411	2460
280	416	30.1	32.9	35.0	416	1520	1010	760	40.7	416	3190
300	412	28.2	31.4	33.6	412	1450	930	670	38.5	412	3010
320	408	26.6	30.1	32.5	408	1390	850	580	36.6	408	1090
340	405	25.2	29.0	31.7	405	1330	780	490	34.9	405	1060
360	401	24.0	28.2	31.2	401	1280	700	410	33.5	401	1040
380	401	23.1	27.6	30.9	401	1160	600	300	32.2	401	980
400	401	22.3	27.3	30.9	401	1130	530	220	31.2	401	1000

BADA PERFORMANCE FILE										98/03/12		
AC/Type: F27____					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA		
climb -		140/140		0.50	low - 14400							
cruise -		170/170		0.50	nominal - 17000			Max Alt. [ft]:		25000		
descent -		198/198		0.50	high - 20000							
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi	nom		nom	nom
0					123	1400	1160	920	18.3	99	560	6.0
5					134	1370	1120	880	17.8	99	570	5.9
10					140	1340	1080	870	17.5	105	570	5.8
15					143	1250	1050	850	17.3	116	580	5.7
20					144	1230	1030	830	17.1	148	710	5.5
30	178	8.3	9.1	10.2	146	1190	990	790	16.8	207	1370	5.3
40	180	8.4	9.2	10.3	148	1150	960	750	16.4	210	1390	5.1
60	186	8.5	9.3	10.4	153	1070	880	670	15.8	216	1440	4.6
80	191	8.6	9.4	10.5	158	990	800	590	15.1	222	1480	4.2
100	197	8.7	9.5	10.6	163	910	720	510	14.5	229	1530	3.7
120	203	8.8	9.6	10.8	168	820	640	430	13.8	236	1580	3.2
140	210	8.9	9.7	10.9	173	740	560	350	13.2	244	1620	2.8
160	216	8.9	9.8	11.0	179	660	480	270	12.5	251	1250	3.8
180	223	9.0	9.9	10.5	184	580	400	190	11.9	259	1310	3.5
200	231	9.0	9.9	9.9	191	490	310	110	11.3	268	1370	3.3
220	238	9.1	9.4	9.4	197	410	230	20	10.7	277	1440	3.1
240	246	8.8	8.8	8.8	204	330	150	0	10.1	286	1500	2.9
260	255	8.2	8.2	8.2	211	240	60	0	9.5	295	1560	2.7
280	264	7.7	7.7	7.7	218	160	0	0	8.9	297	1780	2.6
300	273	7.2	7.2	7.2	226	70	0	0	8.4	294	1680	2.5
320												
340												
360												
380												
400												



BADA PERFORMANCE FILE										98/03/12	
AC/Type: F28____					Last BADA Revision: 3.0						
					Source OPF File: 3.0					98/03/12	
					Source APF file: 3.0					98/03/12	
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA	
climb - 250/270				0.65	low - 20880						
cruise - 250/300				0.70	nominal - 24000			Max Alt. [ft]:		35000	
descent - 250/280				0.70	high - 33000						
FL	CRUISE				CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi		nom	nom
0					127	2760	2860	2370	108.1	108	900
5					128	2710	2820	2330	106.4	108	910
10					129	2670	2780	2290	104.6	114	890
15					135	2800	2880	2360	103.3	125	850
20					136	2760	2830	2320	101.6	157	820
30	261	19.5	20.8	25.8	159	3270	3260	2650	100.0	230	1070
40	265	19.5	20.9	25.8	193	3960	3820	3070	99.3	233	1080
60	272	19.6	21.0	26.0	272	5170	4570	3410	98.3	240	1110
80	280	19.7	21.1	26.1	280	4810	4250	3140	91.7	280	1380
100	289	19.8	21.2	26.3	289	4460	3930	2880	85.4	289	1410
120	356	26.4	27.4	31.2	321	4220	3720	2730	80.9	332	1770
140	366	26.5	27.5	31.3	330	3860	3390	2460	75.1	342	1810
160	377	26.5	27.6	31.5	340	3500	3060	2200	69.7	353	1840
180	388	26.6	27.7	31.6	351	3150	2750	1940	64.6	363	1870
200	400	26.7	27.8	31.8	362	2820	2450	1690	59.8	375	1900
220	412	26.8	27.9	31.9	373	2510	2160	1460	55.3	386	1930
240	423	26.6	27.7	31.9	385	2210	1890	1230	51.2	398	1950
260	419	24.9	26.1	30.7	389	2500	2120	1320	47.1	411	1980
280	416	23.4	24.8	29.7	386	2210	1850	1070	43.2	416	2570
300	412	22.1	23.6	29.0	383	1950	1600	840	39.7	412	2430
320	408	20.9	22.6	28.5	379	1710	1380	630	36.6	408	1890
340	405	20.0	21.7	28.2	376	1510	1180	430	34.0	405	1830
360	401	19.1	21.1	28.2	372	1330	1010	240	31.7	401	1780
380	401	18.6	20.7	28.5	372	1120	810	70	29.9	401	1640
400	401	18.1	20.5	27.7	372	1010	690	0	28.5	401	1640

BADA PERFORMANCE FILE										98/03/12	
AC/Type: F50____					Last BADA Revision: 3.0						
					Source OPF File: 3.0					98/03/12	
					Source APF file: 3.0					98/03/12	
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA	
climb - 160/160 0.50					low - 15600						
cruise - 224/220 0.44					nominal - 18000					Max Alt. [ft]: 25000	
descent - 227/227 0.45					high - 20820						
FL	CRUISE				CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi		nom	nom
0					132	2270	2040	1820	16.6	103	320 5.9
5					143	2230	1990	1760	16.7	104	330 5.9
10					149	2190	1940	1710	16.6	110	340 5.9
15					164	2030	1850	1660	16.7	121	350 5.9
20					165	2000	1820	1630	16.5	152	480 5.9
30	234	10.6	10.9	11.4	167	1930	1750	1560	16.2	230	1370 5.9
40	237	10.7	11.1	11.5	170	1860	1680	1500	15.9	233	1400 5.9
60	244	11.0	11.4	11.9	175	1720	1550	1370	15.2	240	1230 5.9
80	251	11.3	11.7	12.2	180	1580	1420	1240	14.6	255	1430 5.9
100	259	11.6	12.0	12.5	186	1440	1280	1110	14.0	262	1490 5.9
120	262	11.4	11.8	12.4	191	1310	1150	980	13.3	270	1560 5.9
140	270	11.7	12.2	12.7	197	1170	1020	850	12.7	279	1630 5.9
160	274	11.6	12.0	12.6	204	1030	880	720	12.1	280	1790 5.9
180	272	10.8	11.3	11.9	210	900	750	590	11.5	278	1680 5.9
200	270	10.1	10.6	11.3	217	760	620	460	10.8	276	1580 5.9
220	268	9.5	10.0	10.8	225	620	490	340	10.2	274	1490 5.9
240	266	8.9	9.5	10.1	232	490	360	210	9.6	272	1420 5.9
260	263	8.4	9.1	9.3	240	360	230	80	9.1	269	1360 5.9
280	261	8.0	8.5	8.5	249	220	100	0	8.5	267	1310 5.9
300	259	7.6	7.8	7.8	257	90	0	0	7.9	265	1280 5.9
320											
340											
360											
380											
400											

BADA PERFORMANCE FILE										98/03/12			
AC/Type: F70____					Last BADA Revision: 3.0								
					Source OPF File: 3.0					98/03/12			
					Source APF file: 3.0					98/03/12			
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA		
climb - 250/280				0.70	low - 27360								
cruise - 250/280				0.70	nominal - 34000				Max Alt. [ft]:		37000		
descent - 250/280				0.70	high - 39900								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi	nom		nom	nom	
0					140	2490	2440	2200	48.9	130	1030	9.8	
5					141	2460	2410	2160	48.5	131	1040	9.8	
10					142	2430	2380	2130	48.0	137	1040	9.8	
15					148	2540	2460	2200	48.4	149	1050	9.8	
20					149	2510	2430	2170	47.9	181	1170	9.8	
30	261	21.0	22.6	24.4	172	2950	2750	2440	50.6	230	1580	9.8	
40	265	21.2	22.8	24.6	206	3480	3110	2740	54.9	233	1600	9.8	
60	272	21.5	23.2	25.0	272	4020	3300	2830	62.4	240	1640	9.8	
80	280	21.9	23.7	25.5	280	3760	3080	2630	60.1	280	2110	9.8	
100	289	22.3	24.1	26.0	289	3510	2860	2430	57.9	289	2150	9.8	
120	332	29.1	30.7	32.4	332	3120	2540	2150	60.4	332	2770	9.8	
140	342	29.7	31.3	33.0	342	2840	2300	1930	58.2	342	2820	9.8	
160	353	30.2	31.9	33.6	353	2580	2070	1720	56.1	353	2860	9.8	
180	363	30.7	32.4	34.3	363	2320	1840	1520	54.1	363	2910	9.8	
200	375	31.3	33.0	34.9	375	2070	1630	1320	52.2	375	2950	9.8	
220	386	31.8	33.6	35.6	386	1840	1420	1130	50.5	386	2990	9.8	
240	398	32.4	34.3	36.3	398	1620	1230	950	48.9	398	3030	9.8	
260	411	32.9	34.9	37.0	411	1410	1050	780	47.4	411	3070	9.8	
280	416	32.0	34.1	36.3	416	1730	1250	900	45.4	416	3970	9.8	
300	412	29.7	32.0	34.4	412	1690	1200	840	42.9	412	1050	22.9	
320	408	27.7	30.1	32.7	408	1660	1160	780	40.6	408	970	21.7	
340	405	25.9	28.5	31.4	405	1640	1110	720	38.7	405	910	20.7	
360	401	24.3	27.2	30.3	401	1610	1060	650	36.9	401	860	19.8	
380	401	23.1	26.3	29.7	401	1500	960	550	35.7	401	780	19.1	
400	401	22.1	25.7	29.4	401	1490	920	480	34.7	401	770	18.5	

BADA PERFORMANCE FILE										98/03/12			
AC/Type: F900__					Last BADA Revision: 3.0								
					Source OPF File: 3.0					98/03/12			
					Source APF file: 3.0					98/03/12			
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA			
climb - 250/300 0.80					low - 12600								
cruise - 250/300 0.80					nominal - 15400					Max Alt. [ft]: 49000			
descent - 250/300 0.80					high - 21000								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi					nom
0					132	3340	3340	2880	50.7	122	600	8.2	
5					133	3310	3310	2850	50.2	123	600	8.2	
10					134	3280	3280	2820	49.6	129	600	8.2	
15					140	3410	3380	2890	49.5	140	620	8.2	
20					141	3380	3350	2860	48.9	172	710	8.2	
30	261	11.3	11.9	13.4	164	3920	3760	3170	49.8	230	1100	8.1	
40	265	11.4	12.0	13.5	199	4630	4300	3540	51.7	233	1110	8.1	
60	272	11.5	12.1	13.7	272	5840	4930	3790	55.5	240	1140	8.1	
80	280	11.6	12.2	13.8	280	5540	4670	3580	52.9	280	1520	8.0	
100	289	11.7	12.4	14.0	289	5240	4410	3360	50.4	289	1550	8.0	
120	356	17.5	18.0	19.2	356	5010	4220	3240	52.3	356	2390	7.9	
140	366	17.6	18.1	19.4	366	4630	3900	2980	49.7	366	2430	7.9	
160	377	17.8	18.3	19.6	377	4250	3570	2720	47.1	377	2460	7.9	
180	388	18.0	18.5	19.9	388	3870	3240	2450	44.6	388	2500	7.8	
200	400	18.2	18.7	20.1	400	3490	2920	2190	42.1	400	2530	7.8	
220	412	18.3	18.9	20.3	412	3110	2600	1930	39.6	412	2560	7.7	
240	425	18.5	19.0	20.5	425	2740	2280	1670	37.2	425	2580	7.7	
260	438	18.6	19.2	20.7	438	2370	1960	1410	34.9	438	2610	7.7	
280	452	18.8	19.4	20.9	452	2010	1650	1160	32.6	452	2630	7.6	
300	466	18.9	19.5	21.1	466	1660	1340	910	30.3	466	2650	7.6	
320	467	17.8	18.5	20.2	467	2020	1610	1050	27.6	467	3550	7.5	
340	463	16.4	17.1	19.0	463	1750	1370	830	24.9	463	3280	7.5	
360	458	15.1	15.9	17.9	458	1480	1130	610	22.3	458	3030	7.4	
380	458	14.1	14.9	17.1	458	1120	820	370	20.0	458	2600	7.4	
400	458	13.1	14.1	16.5	458	880	600	170	17.8	458	2450	7.4	

BADA PERFORMANCE FILE										98/03/12		
AC/Type: FA10__					Last BADA Revision: 3.0							
					Source OPF File: 3.0		98/03/12					
					Source APF file: 3.0		98/03/12					
Speeds:		CAS(LO/HI)	Mach	Mass Levels [kg]				Temperature:		ISA		
climb - 250/260		0.72	low	-	6000							
cruise - 250/300		0.75	nominal	-	7250		Max Alt. [ft]:		45000			
descent - 250/320		0.80	high	-	8755							
FL	CRUISE					CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi		nom	nom	
0					127	2300	2280	1940	17.1	119	1040	13.9
5					128	2290	2260	1920	17.0	120	1050	13.7
10					129	2280	2250	1910	16.9	126	1040	13.5
15					135	2430	2370	2010	16.8	137	1020	13.3
20					136	2410	2350	1990	16.7	169	1090	13.1
30	261	12.7	12.7	12.7	159	2980	2790	2360	16.8	230	1710	12.7
40	265	12.3	12.3	12.3	193	3630	3270	2760	17.1	233	1740	12.3
60	272	11.5	11.5	11.5	272	4240	3560	2940	17.7	240	1790	11.5
80	280	10.7	10.7	10.7	280	4090	3410	2810	17.2	280	2460	10.7
100	289	10.0	10.0	10.0	289	3920	3270	2670	16.7	289	2530	10.0
120	356	10.4	10.7	11.2	309	3670	3050	2490	16.4	379	2300	9.2
140	366	10.4	10.8	11.2	318	3480	2880	2330	15.9	390	2430	8.4
160	377	10.5	10.8	11.3	328	3290	2710	2170	15.4	401	2570	7.6
180	388	10.5	10.8	11.3	338	3080	2520	2000	14.9	413	2700	6.9
200	400	10.5	10.9	11.4	349	2870	2340	1830	14.4	425	2830	6.1
220	412	10.6	10.9	11.4	360	2660	2140	1660	13.9	438	2960	5.9
240	425	10.6	10.9	11.5	371	2440	1940	1470	13.3	451	3090	5.7
260	438	10.6	11.0	11.5	383	2210	1740	1290	12.8	465	3210	5.5
280	445	10.3	10.7	11.3	395	1970	1530	1090	12.3	475	4590	5.2
300	441	9.5	10.0	10.6	408	1730	1310	900	11.8	471	4170	5.0
320	438	8.8	9.3	10.0	420	2030	1490	950	11.3	467	3800	4.7
340	434	8.2	8.7	9.5	416	1950	1400	840	10.7	463	3490	4.4
360	430	7.7	8.2	9.0	413	1840	1270	690	10.0	458	3230	4.1
380	430	7.2	7.8	8.7	412	1580	1040	480	9.4	458	2790	3.9
400	430	6.8	7.5	8.4	412	1430	870	290	8.8	458	2680	3.6

BADA PERFORMANCE FILE										98/03/12					
AC/Type: FA20__					Last BADA Revision: 3.0					98/03/12					
					Source OPF File: 3.0										
					Source APF file: 3.0										
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA				
climb - 233/233				0.68	low - 8808										
cruise - 250/320				0.76	nominal - 10000				Max Alt. [ft]:		42000				
descent - 250/270				0.70	high - 12000										
FL	CRUISE					CLIMB					DESCENT				
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]				
		lo	nom	hi		lo	nom	hi			nom	nom	nom		
0					138	2400	2510	2150	35.3	128	1470	13.9			
5					139	2370	2470	2120	34.9	129	1480	13.7			
10					140	2330	2440	2080	34.5	135	1470	13.5			
15					146	2470	2540	2170	34.3	147	1470	13.3			
20					147	2430	2510	2130	33.9	179	1550	13.1			
30	261	13.2	14.0	15.5	170	2940	2920	2490	33.9	230	2010	12.7			
40	265	13.3	14.0	15.6	204	3550	3380	2880	34.4	233	2030	12.3			
60	272	13.4	14.1	15.7	254	4080	3600	2940	34.4	240	2090	11.5			
80	280	13.4	14.2	15.8	261	3830	3370	2730	32.8	280	2640	10.7			
100	289	13.5	14.3	15.9	269	3590	3140	2530	31.3	289	2700	10.0			
120	379	20.9	21.4	22.5	278	3360	2920	2320	29.9	321	3190	9.2			
140	390	21.0	21.5	22.6	286	3120	2700	2120	28.5	330	3250	8.4			
160	401	21.1	21.6	22.7	295	2890	2480	1910	27.2	340	3310	7.6			
180	413	21.2	21.7	22.9	304	2660	2270	1720	26.0	351	3380	6.9			
200	425	21.3	21.8	23.0	314	2440	2060	1520	24.8	362	3430	6.1			
220	438	21.3	21.9	23.1	324	2230	1860	1340	23.7	373	3490	5.3			
240	451	21.4	22.0	23.2	334	2020	1670	1150	22.7	385	3550	4.5			
260	455	20.6	21.2	22.5	345	1820	1480	980	21.7	397	3600	3.7			
280	451	19.2	19.9	21.2	357	1640	1300	810	20.9	410	1400	10.5			
300	447	17.9	18.7	20.2	369	1460	1140	650	20.1	412	1850	10.0			
320	443	16.7	17.6	19.2	381	1300	980	500	19.4	408	1760	9.5			
340	439	15.7	16.7	18.5	393	1510	1100	470	18.7	405	1690	9.1			
360	436	14.9	15.9	17.7	390	1420	990	330	17.9	401	1650	8.7			
380	435	14.2	15.3	17.1	390	1250	830	170	17.2	401	1540	8.4			
400	435	13.6	14.8	16.5	390	1170	720	20	16.7	401	1560	8.1			

BADA PERFORMANCE FILE										98/03/12			
AC/Type: FA50__					Last BADA Revision: 3.0					98/03/12			
					Source OPF File: 3.0								
					Source APF file: 3.0								
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA		
climb - 250/260				0.72	low - 10320								
cruise - 250/300				0.75	nominal - 15000				Max Alt. [ft]:		49000		
descent - 250/300				0.75	high - 18500								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi					nom
0					138	2790	2410	2050	41.0	121	570	13.9	
5					139	2770	2390	2030	40.6	122	580	13.7	
10					140	2750	2370	2010	40.2	128	570	13.5	
15					146	2890	2450	2070	39.7	139	550	13.3	
20					147	2870	2430	2050	39.3	171	600	13.1	
30	261	14.8	16.1	17.3	170	3390	2740	2290	38.5	230	1120	12.7	
40	265	14.8	16.1	17.3	204	4000	3060	2520	37.7	233	1150	12.3	
60	272	14.8	16.0	17.3	272	4410	3080	2470	36.1	240	1210	11.5	
80	280	14.7	16.0	17.3	280	4190	2910	2320	34.5	280	1800	10.7	
100	289	14.7	16.0	17.2	289	3960	2740	2170	33.0	289	1870	10.0	
120	356	20.1	21.0	21.9	309	3630	2500	1960	31.5	356	2610	9.2	
140	366	20.0	20.9	21.8	318	3390	2310	1800	30.1	366	2720	8.4	
160	377	19.8	20.8	21.7	328	3150	2130	1640	28.7	377	2820	7.6	
180	388	19.7	20.6	21.6	338	2910	1950	1480	27.4	388	2920	6.9	
200	400	19.6	20.5	21.4	349	2670	1760	1320	26.1	400	3010	6.5	
220	412	19.4	20.4	21.3	360	2440	1580	1160	24.9	412	3110	6.2	
240	425	19.3	20.2	21.2	371	2200	1400	1000	23.7	425	3190	5.9	
260	438	19.1	20.1	21.0	383	1970	1220	840	22.6	438	3280	5.6	
280	445	18.5	19.4	20.4	395	1750	1050	690	21.5	445	4420	5.4	
300	441	17.0	18.1	19.2	408	1530	880	530	20.4	441	4050	5.1	
320	438	15.7	16.9	18.1	420	1810	980	540	19.5	438	3710	4.9	
340	434	14.5	15.8	17.1	416	1850	980	510	18.5	434	3420	4.6	
360	430	13.4	14.8	16.3	413	1870	960	460	17.6	430	3170	4.4	
380	430	12.5	14.0	15.6	412	1750	860	370	16.8	430	2760	4.2	
400	430	11.6	13.3	15.1	412	1740	810	290	16.0	430	2620	4.0	

BADA PERFORMANCE FILE										98/03/12		
AC/Type: FGTR__					Last BADA Revision: 3.0					98/03/12		
					Source OPF File: 3.0							
					Source APF file: 3.0							
Speeds:		CAS(LO/HI)	Mach	Mass Levels [kg]				Temperature:		ISA		
climb - 250/380		0.90	low - 9600									
cruise - 250/380		0.90	nominal - 10000					Max Alt. [ft]:		50000		
descent - 250/380		0.90	high - 12000									
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]		
		lo	nom	hi		lo	nom	hi		nom	nom	
0					250	3840	3620	2590	0.0	220	2810	0.0
5					252	3850	3620	2590	0.0	222	2830	0.0
10					254	3850	3630	2590	0.0	223	2850	0.0
15					255	3860	3630	2590	0.0	225	2870	0.0
20					257	3860	3630	2590	0.0	226	2890	0.0
30	261	0.0	0.0	0.0	261	3870	3640	2590	0.0	230	2920	0.0
40	265	0.0	0.0	0.0	265	3880	3650	2590	0.0	233	2960	0.0
60	272	0.0	0.0	0.0	272	3900	3670	2580	0.0	240	3040	0.0
80	280	0.0	0.0	0.0	280	3920	3680	2580	0.0	280	3140	0.0
100	289	0.0	0.0	0.0	289	3940	3690	2570	0.0	289	3210	0.0
120	447	0.0	0.0	0.0	447	4850	4640	3720	0.0	447	4820	0.0
140	460	0.0	0.0	0.0	460	4840	4630	3700	0.0	460	4880	0.0
160	473	0.0	0.0	0.0	473	4840	4620	3680	0.0	473	4930	0.0
180	486	0.0	0.0	0.0	486	4830	4610	3650	0.0	486	4980	0.0
200	500	0.0	0.0	0.0	500	4820	4600	3630	0.0	500	5020	0.0
220	514	0.0	0.0	0.0	514	4800	4580	3600	0.0	514	5060	0.0
240	529	0.0	0.0	0.0	529	4790	4560	3570	0.0	529	5100	0.0
260	539	0.0	0.0	0.0	539	7330	6980	5420	0.0	539	5620	0.0
280	534	0.0	0.0	0.0	534	7340	6980	5350	0.0	534	5360	0.0
300	530	0.0	0.0	0.0	530	7310	6930	5230	0.0	530	5160	0.0
320	525	0.0	0.0	0.0	525	7220	6820	5040	0.0	525	5020	0.0
340	520	0.0	0.0	0.0	520	7070	6660	4800	0.0	520	4930	0.0
360	516	0.0	0.0	0.0	516	6880	6450	4500	0.0	516	4910	0.0
380	516	0.0	0.0	0.0	516	5960	5570	3730	0.0	516	4450	0.0
400	516	0.0	0.0	0.0	516	5750	5330	3390	0.0	516	4580	0.0



BADA PERFORMANCE FILE										98/03/12			
AC/Type: H25B__					Last BADA Revision: 3.0					98/03/12			
					Source OPF File: 3.0								
					Source APF file: 3.0								
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA		
climb - 250/250				0.63	low - 7457								
cruise - 250/270				0.75	nominal - 8165				Max Alt. [ft]:		41000		
descent - 250/275				0.67	high - 9848								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi	nom		nom	nom	
0					124	2520	2690	2440	62.7	122	500	10.0	
5					125	2490	2660	2410	61.8	123	510	9.9	
10					126	2460	2630	2380	61.0	129	500	9.9	
15					132	2590	2740	2460	60.2	140	490	9.9	
20					133	2560	2710	2430	59.4	172	550	9.8	
30	261	19.0	19.5	20.8	156	3040	3110	2780	57.8	230	1040	9.7	
40	265	19.0	19.5	20.8	190	3620	3580	3170	56.2	233	1080	9.6	
60	272	19.0	19.5	20.7	272	4230	3930	3370	53.2	240	1140	9.4	
80	280	18.9	19.4	20.7	280	3950	3670	3130	50.2	280	1710	9.2	
100	289	18.9	19.4	20.7	289	3680	3410	2900	47.4	289	1790	9.0	
120	321	21.2	21.6	22.7	297	3410	3160	2670	44.6	327	2430	8.8	
140	330	21.1	21.5	22.7	306	3140	2900	2430	42.0	336	2510	8.6	
160	340	21.0	21.4	22.6	316	2870	2640	2200	39.5	347	2600	8.4	
180	351	20.9	21.4	22.5	326	2610	2390	1980	37.1	357	2680	8.2	
200	362	20.8	21.3	22.4	336	2350	2150	1750	34.8	368	2760	8.0	
220	373	20.7	21.2	22.3	347	2090	1900	1530	32.7	380	2840	7.8	
240	385	20.6	21.0	22.2	358	1840	1670	1310	30.7	392	2910	7.6	
260	397	20.5	20.9	22.1	369	1600	1430	1100	28.7	401	3810	7.4	
280	410	20.3	20.8	22.0	374	1800	1600	1190	26.9	398	3540	7.2	
300	423	20.2	20.6	21.8	371	1660	1460	1050	25.2	394	870	14.5	
320	437	20.0	20.5	21.7	368	1530	1330	910	23.7	391	830	13.6	
340	434	18.7	19.2	20.5	364	1390	1190	760	22.2	387	800	12.8	
360	430	17.5	18.0	19.5	361	1260	1060	610	20.9	384	780	12.0	
380	430	16.4	17.0	18.6	361	1080	880	440	19.7	384	740	11.3	
400	430	15.5	16.1	17.7	361	960	750	300	18.6	384	760	10.7	

BADA PERFORMANCE FILE										98/03/12			
AC/Type: JSTA__					Last BADA Revision: 3.0								
					Source OPF File: 3.0					98/03/12			
					Source APF file: 3.0					98/03/12			
Speeds:		CAS(LO/HI)	Mach	Mass Levels [kg]				Temperature:		ISA			
climb - 160/160			0.32	low - 5494									
cruise - 200/200			0.41	nominal - 6200				Max Alt. [ft]:		25000			
descent - 200/200			0.37	high - 7350									
FL	CRUISE					CLIMB					DESCENT		
	TAS	fuel			TAS	ROCD			fuel	TAS	ROCD	fuel	
	[kts]	[kg/min]			[kts]	[fpm]			[kg/min]	[kts]	[fpm]	[kg/min]	
		lo	nom	hi		lo	nom	hi	nom		nom	nom	
0					134	2200	2000	1690	6.3	114	1020	2.2	
5					145	2170	1940	1620	6.4	115	1030	2.2	
10					152	2130	1890	1560	6.4	121	1060	2.2	
15					164	1960	1790	1530	6.6	132	1150	2.2	
20					165	1930	1750	1500	6.5	164	1550	2.2	
30	209	4.6	4.8	5.0	167	1860	1690	1430	6.5	209	2510	2.2	
40	212	4.7	4.8	5.1	170	1790	1620	1360	6.4	212	2540	2.2	
60	218	4.8	5.0	5.3	175	1650	1480	1230	6.2	218	2600	2.2	
80	225	5.0	5.1	5.4	180	1520	1350	1100	6.0	225	2670	2.2	
100	232	5.1	5.3	5.6	186	1380	1220	970	5.8	232	2110	2.2	
120	239	5.2	5.4	5.7	191	1240	1090	850	5.7	234	2270	2.2	
140	246	5.4	5.6	5.9	197	1110	960	720	5.5	232	2130	2.2	
160	254	5.6	5.7	6.0	199	1080	910	650	5.3	231	2010	2.2	
180	254	5.3	5.5	5.7	198	990	820	550	4.9	229	1900	2.2	
200	252	4.9	5.1	5.4	196	890	720	430	4.6	227	1810	2.2	
220	250	4.6	4.8	5.1	195	780	600	300	4.3	225	1740	2.2	
240	248	4.3	4.6	4.8	193	660	470	160	4.0	223	1680	2.2	
260	245	4.1	4.4	4.5	192	530	330	10	3.7	222	1640	2.2	
280	243	3.9	4.2	4.2	190	380	180	0	3.4	220	1620	2.2	
300	241	3.7	3.9	3.9	188	230	10	0	3.1	218	1610	2.2	
320	239	3.6	3.6	3.6	187	60	0	0	2.8	216	1610	2.2	
340													
360													
380													
400													

BADA PERFORMANCE FILE										98/03/12		
AC/Type: JSTB__					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA		
climb - 170/170 0.35					low - 7620							
cruise - 200/200 0.42					nominal - 9000					Max Alt. [ft]: 26000		
descent - 190/190 0.39					high - 10433							
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi	nom		nom	nom
0					158	2860	2540	2250	11.2	136	940	3.9
5					169	2810	2460	2200	11.3	137	940	3.9
10					172	2760	2410	2160	11.3	143	980	3.9
15					174	2640	2370	2120	11.2	155	1070	3.9
20					175	2600	2320	2080	11.1	187	1440	3.9
30	209	4.9	5.2	5.6	178	2510	2240	2000	10.9	198	1600	3.9
40	212	5.0	5.3	5.6	180	2420	2160	1920	10.7	201	1620	3.9
60	218	5.2	5.4	5.8	186	2250	1990	1760	10.3	207	1660	3.9
80	225	5.3	5.6	6.0	191	2070	1820	1600	9.9	214	1700	3.9
100	232	5.5	5.8	6.1	197	1900	1660	1440	9.5	220	1740	3.9
120	239	5.6	5.9	6.3	203	1730	1500	1280	9.1	227	1520	3.9
140	246	5.8	6.1	6.5	210	1560	1330	1120	8.7	234	1580	3.8
160	254	5.9	6.3	6.7	216	1390	1170	970	8.4	241	1630	3.8
180	260	6.0	6.3	6.8	216	1360	1120	900	7.8	241	1740	3.8
200	258	5.6	6.0	6.5	215	1210	980	740	7.3	239	1670	3.8
220	256	5.3	5.7	6.2	213	1050	820	580	6.7	237	1610	3.8
240	254	5.0	5.4	6.0	211	890	650	400	6.1	235	1560	3.8
260	251	4.7	5.2	5.8	210	710	460	210	5.5	233	1530	3.8
280	249	4.5	5.0	5.7	208	520	270	20	4.9	232	1510	3.8
300	247	4.3	4.9	5.1	206	320	70	0	4.3	230	1500	3.8
320	245	4.2	4.6	4.6	204	120	0	0	3.8	228	1510	3.8
340												
360												
380												
400												

BADA PERFORMANCE FILE										98/03/12			
AC/Type: L101__					Last BADA Revision: 3.0					98/03/12			
					Source OPF File: 3.0								
					Source APF file: 3.0								
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA		
climb - 250/300				0.80	low - 120000								
cruise - 250/300				0.82	nominal - 154500				Max Alt. [ft]:		42000		
descent - 250/300				0.82	high - 200000								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]		
		lo	nom	hi		lo	nom	hi		nom	nom		
0					168	2420	2280	1830	143.7	140	1170	38.0	
5					169	2390	2250	1810	142.8	141	1180	37.8	
10					170	2370	2230	1780	142.0	147	1170	37.6	
15					176	2470	2290	1830	144.7	159	1150	37.4	
20					178	2440	2270	1810	143.9	191	1130	37.2	
30	261	47.4	56.5	72.0	201	2840	2550	2030	156.4	230	1230	36.7	
40	265	48.0	57.2	73.0	236	3350	2900	2290	175.6	233	1250	36.3	
60	272	49.2	58.7	74.9	272	3940	3020	2200	190.1	240	1280	35.5	
80	280	50.4	60.2	76.9	280	3760	2870	2060	185.3	280	1480	34.6	
100	289	51.7	61.8	79.1	289	3580	2710	1920	180.4	289	1510	33.7	
120	356	75.8	84.4	99.0	356	3530	2720	1980	206.9	356	2000	32.9	
140	366	77.6	86.4	101.6	366	3300	2520	1810	201.1	366	2040	32.0	
160	377	79.4	88.6	104.2	377	3070	2330	1640	195.2	377	2070	31.2	
180	388	81.2	90.8	107.0	388	2840	2130	1480	189.3	388	2100	30.3	
200	400	83.1	93.0	109.8	400	2610	1940	1310	183.4	400	2130	29.4	
220	412	85.1	95.3	112.7	412	2380	1740	1140	177.4	412	2160	28.6	
240	425	87.0	97.6	115.7	425	2150	1550	970	171.4	425	2190	27.7	
260	438	89.0	100.0	118.8	438	1930	1360	800	165.5	438	2220	26.9	
280	452	91.0	102.5	122.0	452	1710	1170	640	159.5	452	2250	26.0	
300	466	93.0	105.0	125.3	466	1490	980	470	153.6	466	2270	25.1	
320	478	94.2	106.7	128.0	467	1890	1190	460	143.6	478	2620	24.3	
340	474	88.6	102.2	125.4	463	1690	990	250	132.8	474	2530	23.4	
360	470	83.8	98.6	119.2	458	1480	780	30	122.6	470	2470	22.6	
380	470	80.5	96.8	110.8	458	1170	520	0	113.9	470	2230	21.7	
400	470	77.9	95.9	102.9	458	980	320	0	105.8	470	2240	20.8	

BADA PERFORMANCE FILE										98/03/12			
AC/Type: LJ35__					Last BADA Revision:		3.0		98/03/12				
					Source OPF File:		3.0						
					Source APF file:		3.0						
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA			
climb - 250/250				0.70	low - 4956								
cruise - 250/300				0.77	nominal - 6800			Max Alt. [ft]:		43000			
descent - 250/300				0.82	high - 8300								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi	nom		nom	nom	
0					145	2820	2530	2130	10.7	132	920	5.2	
5					146	2800	2500	2110	10.7	133	930	5.2	
10					148	2790	2480	2090	10.6	139	920	5.2	
15					154	2930	2580	2160	10.9	151	900	5.2	
20					155	2910	2560	2140	10.9	183	940	5.2	
30	261	5.5	6.2	6.9	178	3460	2920	2440	11.9	230	1270	5.2	
40	265	5.6	6.3	7.0	212	4120	3320	2750	13.6	233	1300	5.2	
60	272	5.7	6.4	7.1	272	4820	3530	2830	16.2	240	1350	5.1	
80	280	5.9	6.6	7.3	280	4610	3350	2670	15.9	280	1830	5.1	
100	289	6.0	6.7	7.5	289	4390	3180	2510	15.6	289	1900	5.1	
120	356	9.6	10.2	10.8	297	4170	3000	2350	15.3	356	3030	5.1	
140	366	9.8	10.4	11.1	306	3940	2810	2180	15.0	366	3110	5.1	
160	377	10.0	10.7	11.4	316	3710	2620	2010	14.7	377	3180	5.0	
180	388	10.2	10.9	11.6	326	3460	2420	1830	14.3	388	3260	5.0	
200	400	10.4	11.1	11.9	336	3210	2210	1640	14.0	400	3330	5.0	
220	412	10.6	11.4	12.2	347	2960	2010	1450	13.6	412	3400	5.0	
240	425	10.9	11.6	12.4	358	2690	1790	1260	13.2	425	3470	4.9	
260	438	11.1	11.9	12.7	369	2430	1570	1060	12.8	438	3540	4.9	
280	452	11.3	12.1	13.0	381	2150	1350	860	12.4	452	3600	4.9	
300	453	10.7	11.6	12.6	394	1870	1120	660	12.0	466	3660	4.9	
320	449	9.9	10.9	11.9	407	1590	890	450	11.6	478	3210	5.8	
340	445	9.1	10.2	11.1	405	1900	970	380	10.7	474	3010	5.4	
360	441	8.5	9.6	10.2	401	1680	760	150	9.9	470	2860	5.0	
380	441	8.0	9.2	9.5	401	1360	490	0	9.1	470	2530	4.8	
400	441	7.5	8.7	8.7	401	1130	250	0	8.4	470	2490	4.8	

BADA PERFORMANCE FILE										98/03/12		
AC/Type: MD11__					Last BADA Revision:		3.0		98/03/12			
					Source OPF File:		3.0					
					Source APF file:		3.0					
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA		
climb - 250/330				0.82	low - 157200							
cruise - 250/345				0.83	nominal - 227300			Max Alt. [ft]:		43000		
descent - 250/300				0.82	high - 273300							
FL	CRUISE					CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom					hi
0					187	2790	2400	2040	295.8	165	1380	21.7
5					188	2760	2370	2000	292.8	166	1390	21.6
10					190	2730	2340	1970	289.8	172	1370	21.6
15					196	2830	2400	2020	290.2	184	1350	21.5
20					198	2800	2370	1990	287.2	216	1310	21.4
30	261	67.4	95.8	120.2	221	3240	2650	2220	294.4	230	1330	21.3
40	265	67.9	96.6	121.1	256	3810	3000	2410	307.7	233	1350	21.1
60	272	68.8	98.1	123.0	272	4450	2920	2250	300.3	240	1380	20.8
80	280	69.8	99.6	125.1	280	4230	2750	2090	288.2	280	1470	20.5
100	289	70.9	101.2	127.2	289	4010	2570	1930	276.3	289	1430	20.3
120	407	116.3	136.1	153.0	390	4200	2830	2240	309.5	356	1700	20.0
140	419	117.7	138.1	155.4	401	3910	2600	2030	296.6	366	1730	19.7
160	431	119.2	140.1	157.9	413	3620	2380	1830	284.0	377	1770	19.4
180	444	120.7	142.1	160.5	425	3330	2160	1630	271.6	388	1810	19.1
200	457	122.2	144.2	163.1	438	3050	1940	1430	259.6	400	1840	18.8
220	470	123.6	146.3	165.7	451	2780	1720	1240	248.0	412	1880	18.5
240	484	125.1	148.5	168.5	464	2510	1510	1050	236.7	425	1910	18.2
260	497	125.8	150.0	170.8	478	2250	1310	860	225.7	438	1950	17.9
280	493	118.4	144.8	167.3	487	2910	1610	980	213.3	452	1980	17.6
300	489	111.9	140.6	165.1	483	2640	1360	720	198.1	466	2010	17.4
320	484	106.3	137.6	164.3	478	2370	1100	460	183.9	478	2950	17.1
340	480	101.6	135.7	164.9	474	2100	840	190	170.6	474	2910	16.8
360	476	97.8	135.1	155.0	470	1840	580	0	158.2	470	2900	16.5
380	475	95.4	136.4	144.7	470	1460	290	0	147.7	470	2680	16.2
400	475	93.9	135.2	135.2	470	1230	50	0	138.0	470	2740	15.9

BADA PERFORMANCE FILE										98/03/12		
AC/Type: MD80__					Last BADA Revision:		3.0					
					Source OPF File:		3.0		98/03/12			
					Source APF file:		3.0		98/03/12			
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA		
climb - 250/290				0.72	low - 43800							
cruise - 250/290				0.76	nominal - 61200			Max Alt. [ft]:		37000		
descent - 250/290				0.76	high - 72600							
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi		nom	nom	
0					161	2490	2210	1920	118.6	151	1180	13.6
5					162	2470	2190	1890	117.5	152	1190	13.6
10					163	2440	2170	1870	116.4	158	1190	13.6
15					170	2560	2240	1930	116.2	169	1180	13.6
20					171	2540	2220	1910	115.1	201	1220	13.6
30	261	30.6	37.6	43.4	194	2990	2520	2170	116.8	230	1330	13.5
40	265	30.8	37.8	43.6	229	3570	2890	2480	120.4	233	1350	13.5
60	272	31.1	38.2	44.1	272	4340	3080	2520	122.3	240	1380	13.5
80	280	31.4	38.6	44.6	280	4150	2930	2380	117.7	280	1620	13.5
100	289	31.7	39.0	45.1	289	3950	2760	2230	113.1	289	1660	13.4
120	344	40.7	46.6	51.5	344	3830	2720	2220	115.5	344	2100	13.4
140	354	41.1	47.1	52.1	354	3590	2520	2040	110.8	354	2140	13.4
160	365	41.5	47.6	52.7	365	3340	2320	1860	106.1	365	2170	13.4
180	376	41.8	48.1	53.3	376	3090	2120	1670	101.5	376	2210	13.3
200	387	42.2	48.6	54.0	387	2830	1910	1490	96.9	387	2240	13.3
220	399	42.6	49.2	54.6	399	2580	1710	1300	92.3	399	2280	13.3
240	412	43.0	49.7	55.3	412	2320	1500	1110	87.8	412	2310	13.3
260	424	43.4	50.3	56.0	424	2050	1290	920	83.3	424	2340	13.2
280	438	43.8	50.8	56.7	427	2480	1490	990	77.9	438	2370	13.2
300	447	43.4	50.8	56.9	424	2220	1250	760	72.0	447	1000	36.8
320	443	40.8	48.9	55.5	420	1960	1010	520	66.4	443	1060	33.9
340	439	38.6	47.4	54.7	416	1700	760	260	60.9	439	1120	31.1
360	436	36.7	46.3	51.8	413	1420	500	0	55.6	436	1210	28.4
380	435	35.3	45.8	47.3	412	1070	210	0	50.8	435	1230	25.9
400	435	34.2	43.0	43.0	412	810	0	0	46.1	435	1360	23.6

BADA PERFORMANCE FILE										98/03/12		
AC/Type: MU2____					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA	
climb -		140/140		0.57	low -		3120					
cruise -		210/210		0.57	nominal -		4077		Max Alt. [ft]:		28000	
descent -		200/200		0.57	high -		4750					
=====												
FL	CRUISE					CLIMB					DESCENT	
	TAS	fuel			TAS	ROCD			fuel	TAS	ROCD	fuel
	[kts]	[kg/min]			[kts]	[fpm]			[kg/min]	[kts]	[fpm]	[kg/min]
		lo	nom	hi		lo	nom	hi	nom		nom	nom
=====												
0					123	3390	2730	2320	7.1	97	1350	3.5
5					134	3440	2770	2360	7.1	98	1360	3.5
10					140	3440	2770	2320	7.1	104	1330	3.4
15					143	3540	2740	2280	7.1	115	1260	3.4
20					144	3500	2710	2250	7.0	146	1200	3.4
30	219	3.3	3.3	3.3	146	3420	2630	2180	6.9	209	1520	3.3
40	222	3.2	3.2	3.2	148	3340	2560	2100	6.8	212	1540	3.2
60	229	3.1	3.1	3.3	153	3180	2410	1960	6.6	218	1580	3.1
80	236	2.9	3.0	3.3	158	3020	2260	1810	6.4	225	1620	2.9
100	243	2.8	3.0	3.4	163	2860	2110	1660	6.2	232	1660	2.8
120	250	2.7	3.1	3.5	168	2710	1970	1520	6.0	239	1700	2.7
140	258	2.7	3.2	3.6	173	2550	1820	1370	5.8	246	1740	2.5
160	266	2.8	3.3	3.7	179	2390	1670	1220	5.6	254	1790	2.4
180	275	2.9	3.4	3.8	184	2240	1520	1070	5.4	262	1830	2.2
200	284	2.9	3.5	3.9	191	2090	1370	930	5.2	271	1500	2.1
220	293	3.0	3.6	4.0	197	1930	1230	780	5.0	279	1560	2.0
240	303	3.1	3.7	4.1	204	1780	1080	630	4.8	289	1610	1.8
260	313	3.2	3.8	4.3	211	1630	930	480	4.7	298	1670	1.7
280	323	3.3	3.9	4.4	218	1480	790	330	4.5	308	1730	1.5
300	334	3.3	4.0	4.5	226	1330	640	190	4.3	319	1790	1.4
320	333	3.2	3.9	4.5	234	1180	500	40	4.2	330	1840	1.3
340	330	3.1	3.8	4.5	243	1040	350	0	4.0	330	2240	1.1
360	327	3.0	3.8	4.4	252	900	210	0	3.9	327	2230	1.0
380	327	2.9	3.8	4.2	263	840	80	0	3.7	327	2170	0.8
400	327	2.9	3.9	4.0	275	700	0	0	3.6	327	2220	0.7



BADA PERFORMANCE FILE										98/03/12		
AC/Type: P31T__					Last BADA Revision: 3.0					98/03/12		
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA	
climb -		135/135		0.47	low -		2736					
cruise -		240/220		0.44	nominal -		3620		Max Alt. [ft]: 29000			
descent -		214/214		0.47	high -		4080					
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]		
		lo	nom	hi		lo	nom	hi		nom	nom	
0					129	3690	3270	3020	5.9	100	360	3.5
5					136	3820	3300	2970	6.0	101	380	3.5
10					137	3850	3250	2920	5.9	106	370	3.5
15					138	3980	3190	2870	5.9	117	370	3.4
20					139	3920	3140	2820	5.8	149	500	3.4
30	250	4.9	5.1	5.3	141	3810	3040	2720	5.7	223	1870	3.4
40	254	5.0	5.2	5.3	143	3690	2930	2610	5.6	227	1920	3.3
60	261	5.1	5.3	5.4	147	3470	2730	2420	5.4	233	2020	3.2
80	269	5.2	5.4	5.6	152	3250	2530	2220	5.1	240	770	3.2
100	277	5.4	5.6	5.7	157	3030	2330	2030	4.9	248	900	3.1
120	262	4.4	4.6	4.8	162	2820	2140	1840	4.7	255	1030	3.1
140	270	4.5	4.7	4.9	167	2610	1950	1650	4.6	263	1150	3.0
160	274	4.4	4.7	4.8	172	2400	1760	1470	4.4	271	1270	3.0
180	272	4.1	4.4	4.5	178	2210	1580	1290	4.2	280	1390	2.9
200	270	3.8	4.1	4.3	184	2010	1400	1110	4.0	288	1720	2.9
220	268	3.5	3.9	4.1	190	1830	1220	940	3.9	286	1590	2.7
240	266	3.3	3.7	3.9	197	1650	1060	780	3.7	284	1480	2.6
260	263	3.1	3.5	3.7	203	1470	890	610	3.6	281	1410	2.4
280	261	2.9	3.3	3.6	211	1310	740	460	3.5	279	1360	2.3
300	259	2.7	3.2	3.5	218	1150	580	310	3.3	277	1340	2.2
320	257	2.6	3.1	3.4	226	1000	440	160	3.2	274	1340	2.1
340	254	2.4	3.0	3.3	234	860	300	20	3.1	272	1370	2.0
360	252	2.3	2.9	3.1	243	720	170	0	3.1	269	1430	1.9
380	252	2.3	2.8	2.8	254	700	80	0	3.0	269	1470	1.8
400	252	2.2	2.5	2.5	266	620	0	0	3.0	269	1580	1.8

BADA PERFORMANCE FILE										98/03/12		
AC/Type: PA27__					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature: ISA			
climb -		120/120		0.50	low -		1200					
cruise -		140/140		0.50	nominal -		2180		Max Alt. [ft]: 20000			
descent -		120/120		0.50	high -		2360					
=====												
FL	CRUISE					CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom					hi
=====												
0					120	3100	1910	1710	1.8	96	500	1.0
5					121	3360	1880	1680	1.8	102	520	1.0
10					122	3450	1850	1650	1.8	113	560	1.0
15					123	3780	1820	1620	1.8	123	630	1.0
20					124	3720	1790	1590	1.8	124	640	1.0
30	146	1.8	1.8	1.8	125	3610	1720	1530	1.8	125	660	1.0
40	148	1.8	1.8	1.8	127	3490	1650	1460	1.8	127	670	1.0
60	153	1.8	1.8	1.8	131	3250	1510	1330	1.8	131	710	1.0
80	158	1.8	1.8	1.8	135	2990	1360	1190	1.8	135	750	1.0
100	163	1.8	1.8	1.8	139	2710	1200	1040	1.8	139	570	1.0
120	168	1.8	1.8	1.8	144	2420	1030	880	1.8	144	630	1.0
140	173	1.8	1.8	1.8	148	2100	840	710	1.8	148	690	1.0
160	179	1.8	1.8	1.8	153	1770	650	530	1.8	153	760	1.0
180	184	1.8	1.8	1.8	158	1410	440	330	1.8	158	820	1.0
200	191	1.8	1.8	1.8	164	1030	220	130	1.8	164	900	1.0
220	197	1.8	1.8	1.8	169	630	0	0	1.8	169	970	1.0
240	204	1.8	1.8	1.8	175	200	0	0	1.8	175	1050	1.0
260												
280												
300												
320												
340												
360												
380												
400												

## BADA PERFORMANCE FILE

98/03/12

AC/Type: PA28\_\_

Last BADA Revision: 3.0

Source OPF File: 3.0

Source APF file: 3.0

98/03/12

98/03/12

Speeds: CAS(LO/HI) Mach Mass Levels [kg] Temperature: ISA  
 climb - 79/79 0.24 low - 727  
 cruise - 110/110 0.24 nominal - 1055 Max Alt. [ft]: 12000  
 descent - 126/126 0.24 high - 1055

FL	CRUISE				CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi		nom	nom
0					79	1200	720	720	61	350	0.1
5					80	1170	700	700	66	360	0.1
10					80	1130	680	680	77	390	0.1
15					81	1110	660	660	129	980	0.1
20					81	1080	640	640	130	980	0.1
30	115	0.2	0.2	0.2	83	1010	590	590	132	1000	0.1
40	117	0.2	0.2	0.2	84	950	550	550	134	1010	0.1
60	120	0.2	0.2	0.2	86	820	450	450	138	1040	0.1
80	124	0.2	0.2	0.2	89	680	360	360	142	1070	0.1
100	128	0.2	0.2	0.2	92	540	250	250	146	1100	0.1
120	132	0.2	0.2	0.2	95	380	140	140	151	1130	0.1
140	136	0.2	0.2	0.2	98	220	20	20	151	1120	0.1
160	141	0.2	0.2	0.2	101	40	0	0	150	1050	0.1
180											
200											
220											
240											
260											
280											
300											
320											
340											
360											
380											
400											

BADA PERFORMANCE FILE										98/03/12	
AC/Type: PA31__					Last BADA Revision: 3.0						
					Source OPF File: 3.0		98/03/12				
					Source APF file: 3.0		98/03/12				
Speeds:		CAS(LO/HI)	Mach	Mass Levels [kg]			Temperature:		ISA		
climb	-	130/130	0.44	low	-	1848					
cruise	-	160/160	0.44	nominal	-	2490	Max Alt. [ft]: 23000				
descent	-	170/170	0.44	high	-	2950					
=====											
FL	CRUISE				CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi		nom	nom
=====											
0					115	2850	1960	1520	2.8	95	460 0.8
5					126	2860	1900	1460	2.8	100	510 0.8
10					132	2830	1840	1440	2.8	111	630 0.8
15					133	2640	1820	1420	2.8	174	2230 0.8
20					134	2610	1790	1400	2.8	175	2250 0.8
30	167	2.8	2.8	2.8	136	2550	1750	1360	2.8	178	2290 0.8
40	170	2.8	2.8	2.8	138	2490	1700	1320	2.8	180	2330 0.8
60	175	2.8	2.8	2.8	142	2350	1590	1230	2.8	186	2420 0.8
80	180	2.8	2.8	2.8	146	2210	1490	1140	2.8	191	2510 0.8
100	186	2.8	2.8	2.8	151	2070	1370	1040	2.8	197	2600 0.8
120	191	2.8	2.8	2.8	156	1910	1250	930	2.8	203	2690 0.8
140	197	2.8	2.8	2.8	161	1740	1120	820	2.8	210	2790 0.8
160	204	2.8	2.8	2.8	166	1570	990	700	2.8	216	2570 0.8
180	210	2.8	2.8	2.8	171	1380	840	570	2.8	223	2690 0.8
200	217	2.8	2.8	2.8	177	1180	690	440	2.8	231	2810 0.8
220	225	2.8	2.8	2.8	183	980	530	300	2.8	238	2930 0.8
240	232	2.8	2.8	2.8	189	750	360	150	2.8	246	3050 0.8
260	240	2.8	2.8	2.8	196	520	180	0	2.8	255	3180 0.8
280	249	2.8	2.8	2.8	203	270	0	0	2.8	261	3660 0.8
300	257	2.8	2.8	2.8	210	10	0	0	2.8	259	3380 0.8
320											
340											
360											
380											
400											

BADA PERFORMANCE FILE										98/03/12			
AC/Type: PA34__					Last BADA Revision: 3.0					98/03/12			
					Source OPF File: 3.0					98/03/12			
					Source APF file: 3.0					98/03/12			
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA		
climb	-	100/ 90		0.31	low	-	2160						
cruise	-	145/130		0.34	nominal	-	2070			Max Alt. [ft]: 15000			
descent	-	135/135		0.31	high	-	2070						
=====													
FL	CRUISE					CLIMB					DESCENT		
	TAS	fuel			TAS	ROCD			fuel	TAS	ROCD	fuel	
	[kts]	[kg/min]			[kts]	[fpm]			[kg/min]	[kts]	[fpm]	[kg/min]	
		lo	nom	hi		lo	nom	hi	nom		nom	nom	
=====													
0					100	1720	1850	1850	2.8	84	840	1.0	
5					101	1690	1820	1820	2.8	90	840	1.0	
10					101	1660	1790	1790	2.8	101	840	1.0	
15					102	1630	1750	1750	2.8	138	1070	1.0	
20					103	1600	1720	1720	2.8	139	1070	1.0	
30	151	2.8	2.8	2.8	105	1530	1650	1650	2.8	141	1090	1.0	
40	154	2.8	2.8	2.8	106	1470	1590	1590	2.8	143	1100	1.0	
60	158	2.8	2.8	2.8	109	1330	1440	1440	2.8	147	1130	1.0	
80	163	2.8	2.8	2.8	113	1180	1290	1290	2.8	152	1170	1.0	
100	168	2.8	2.8	2.8	116	1020	1120	1120	2.8	157	1200	1.0	
120	156	2.8	2.8	2.8	108	700	800	800	2.8	162	1230	1.0	
140	161	2.8	2.8	2.8	111	530	630	630	2.8	167	1270	1.0	
160	166	2.8	2.8	2.8	115	350	440	440	2.8	172	1310	1.0	
180	171	2.8	2.8	2.8	119	170	250	250	2.8	178	1350	1.0	
200													
220													
240													
260													
280													
300													
320													
340													
360													
380													
400													

BADA PERFORMANCE FILE										98/03/12		
AC/Type: PA42__					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA	
climb -		150/140		0.46	low -		3919					
cruise -		240/220		0.46	nominal -		4128		Max Alt. [ft]:		33000	
descent -		240/220		0.46	high -		5080					
=====												
FL	CRUISE					CLIMB					DESCENT	
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom					hi
=====												
0					121	3000	2910	2570	8.3	106	620	5.3
5					132	2960	2850	2510	8.3	107	630	5.3
10					138	2920	2800	2460	8.3	113	650	5.2
15					153	2770	2700	2410	8.4	124	710	5.2
20					154	2730	2660	2380	8.3	156	990	5.1
30	250	6.1	6.1	6.3	157	2660	2590	2310	8.2	230	2360	5.0
40	254	6.2	6.2	6.4	159	2590	2520	2240	8.0	233	2390	4.9
60	261	6.3	6.3	6.5	164	2440	2380	2100	7.7	240	2440	4.7
80	269	6.5	6.5	6.7	169	2300	2230	1970	7.5	269	3120	4.5
100	277	6.6	6.6	6.8	174	2160	2090	1830	7.2	277	3190	4.3
120	262	5.4	5.4	5.7	168	2080	2010	1740	6.8	262	2610	4.1
140	270	5.5	5.6	5.8	173	1940	1870	1610	6.5	270	2670	4.0
160	279	5.7	5.7	5.9	179	1800	1730	1470	6.3	279	2720	3.8
180	284	5.6	5.7	5.9	184	1660	1590	1340	6.0	284	3090	3.6
200	282	5.2	5.3	5.5	191	1520	1460	1200	5.8	282	2870	3.4
220	280	4.8	4.9	5.2	197	1380	1320	1070	5.5	280	2660	3.2
240	278	4.5	4.5	4.9	204	1240	1180	940	5.3	278	2470	3.0
260	275	4.2	4.2	4.6	211	1100	1040	800	5.0	275	2300	2.8
280	273	3.9	4.0	4.3	218	960	910	670	4.8	273	2150	2.6
300	271	3.6	3.7	4.1	226	830	780	540	4.5	271	2020	2.4
320	268	3.4	3.5	3.9	234	690	640	410	4.3	268	1900	2.2
340	266	3.2	3.3	3.8	243	560	510	280	4.1	266	1800	2.0
360	264	3.1	3.2	3.7	252	430	380	150	3.9	264	1710	1.8
380	264	3.0	3.1	3.5	263	340	280	30	3.7	264	1610	1.6
400	264	2.9	3.0	3.2	264	230	180	0	3.4	264	1570	1.4

BADA PERFORMANCE FILE										97/09/04			
AC/Type: PAZT__					Last BADA Revision: 2.6								
					Source OPF File: 2.6					97/09/02			
					Source APF file: 2.6					97/09/02			
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature: ISA				
climb -		120/120		0.50	low -		1200						
cruise -		140/140		0.50	nominal -		2180		Max Alt. [ft]: 20000				
descent -		120/120		0.50	high -		2360						
=====													
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]		
		lo	nom	hi		lo	nom	hi			nom	nom	nom
=====													
0					120	3100	1910	1710	1.8	96	500	1.0	
5					121	3360	1880	1680	1.8	102	520	1.0	
10					122	3450	1850	1650	1.8	113	560	1.0	
15					123	3780	1820	1620	1.8	113	570	1.0	
20					124	3720	1790	1590	1.8	114	580	1.0	
30	146	1.8	1.8	1.8	125	3610	1720	1530	1.8	116	600	1.0	
40	148	1.8	1.8	1.8	127	3490	1650	1460	1.8	127	670	1.0	
60	153	1.8	1.8	1.8	131	3250	1510	1330	1.8	131	710	1.0	
80	158	1.8	1.8	1.8	135	2990	1360	1190	1.8	135	750	1.0	
100	163	1.8	1.8	1.8	139	2710	1200	1040	1.8	139	570	1.0	
120	168	1.8	1.8	1.8	144	2420	1030	880	1.8	144	630	1.0	
140	173	1.8	1.8	1.8	148	2100	840	710	1.8	148	690	1.0	
160	179	1.8	1.8	1.8	153	1770	650	530	1.8	153	760	1.0	
180	184	1.8	1.8	1.8	158	1410	440	330	1.8	158	820	1.0	
200	191	1.8	1.8	1.8	164	1030	220	130	1.8	164	900	1.0	
220	197	1.8	1.8	1.8	169	630	0	0	1.8	169	970	1.0	
240	204	1.8	1.8	1.8	175	200	0	0	1.8	175	1050	1.0	
260													
280													
300													
320													
340													
360													
380													
400													

BADA PERFORMANCE FILE										98/03/12		
AC/Type: SB20__					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA		
climb - 190/190 0.50					low - 16560							
cruise - 250/273 0.62					nominal - 20000					Max Alt. [ft]: 31000		
descent - 245/260 0.61					high - 22800							
FL	CRUISE				CLIMB				DESCENT			
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi	nom		nom	nom
0					156	2920	2440	2140	20.7	127	1320	5.7
5					167	2870	2380	2070	20.6	127	1320	5.7
10					173	2820	2330	2020	20.5	133	1320	5.7
15					194	2520	2180	1940	20.4	145	1320	5.7
20					196	2490	2150	1910	20.3	177	1390	5.7
30	261	11.1	11.9	12.7	198	2440	2100	1860	20.1	230	1750	5.7
40	265	11.3	12.1	12.9	201	2380	2050	1810	19.8	233	1760	5.7
60	272	11.6	12.4	13.2	207	2270	1940	1700	19.4	240	1790	5.6
80	280	11.9	12.8	13.6	214	2160	1830	1600	19.0	275	2120	5.6
100	289	12.2	13.1	14.0	220	2050	1720	1490	18.6	283	2150	5.6
120	324	15.5	16.4	17.2	227	1930	1610	1380	18.1	309	2400	5.6
140	334	15.9	16.8	17.7	234	1820	1500	1270	17.7	318	2430	5.6
160	344	16.3	17.3	18.1	241	1700	1390	1160	17.3	328	2460	5.6
180	355	16.8	17.7	17.8	249	1590	1280	1050	16.9	338	2280	5.6
200	366	17.2	17.3	17.3	257	1470	1160	930	16.4	349	2320	5.5
220	377	16.9	16.9	16.9	266	1350	1050	820	16.0	360	2360	5.5
240	374	16.4	16.4	16.4	275	1230	930	700	15.6	368	2950	5.5
260	371	15.4	16.0	16.0	284	1110	820	590	15.1	365	2790	5.5
280	368	14.4	15.5	15.5	294	990	700	470	14.7	362	2650	5.5
300	365	13.6	15.0	15.1	294	1100	740	460	14.3	359	2530	5.5
320	362	12.8	14.4	14.6	292	1050	680	380	13.9	356	2440	5.5
340	359	12.2	13.9	14.2	289	990	600	280	13.4	353	2360	5.4
360	355	11.7	13.5	13.7	287	920	500	160	13.0	350	2300	5.4
380	355	11.4	13.3	13.3	286	790	360	10	12.6	349	2170	5.4
400	355	11.2	12.8	12.8	286	680	230	0	12.2	349	2180	5.4



BADA PERFORMANCE FILE										98/03/12			
AC/Type: SF34__					Last BADA Revision: 3.0								
					Source OPF File: 3.0		98/03/12						
					Source APF file: 3.0		98/03/12						
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA			
climb - 140/140				0.40	low - 6000								
cruise - 240/210				0.45	nominal - 10000			Max Alt. [ft]:		31000			
descent - 220/220				0.50	high - 12930								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom	hi	nom		nom	nom	
0					128	3210	2050	1540	23.0	105	770	13.0	
5					139	3240	2050	1520	22.9	106	770	12.9	
10					142	3230	2030	1490	22.7	112	780	12.8	
15					143	3260	2000	1470	22.4	123	790	12.7	
20					144	3220	1970	1440	22.2	155	940	12.6	
30	250	13.8	14.9	16.0	146	3140	1920	1390	21.8	230	1870	12.4	
40	254	13.8	14.9	16.0	148	3070	1860	1340	21.4	233	1900	12.3	
60	261	13.9	15.0	16.1	153	2920	1750	1240	20.5	240	1940	11.9	
80	269	13.9	15.0	16.2	158	2780	1640	1140	19.7	247	1990	11.5	
100	277	13.9	15.0	16.2	163	2630	1530	1040	18.8	254	2030	11.1	
120	250	10.8	12.2	13.7	168	2490	1430	940	18.0	262	2080	10.8	
140	258	10.8	12.3	13.8	173	2350	1320	840	17.2	270	2120	10.4	
160	266	10.9	12.3	13.8	179	2210	1210	740	16.5	279	2170	10.0	
180	275	10.9	12.4	13.9	184	2070	1100	640	15.7	288	2220	9.7	
200	276	10.4	11.9	13.5	191	1940	1000	540	15.0	297	2270	9.3	
220	274	9.7	11.4	13.1	197	1800	890	440	14.3	304	1820	8.9	
240	272	9.0	10.9	12.8	204	1670	790	340	13.6	302	1700	8.5	
260	269	8.4	10.4	12.5	211	1540	690	240	12.9	299	1590	8.2	
280	267	7.9	10.1	12.4	218	1410	590	150	12.2	297	1500	7.8	
300	265	7.4	9.8	12.3	226	1290	490	50	11.6	294	1430	7.4	
320	263	7.1	9.6	11.9	233	1290	430	0	11.0	292	1380	7.1	
340	260	6.7	9.5	11.2	231	1150	290	0	10.2	289	1350	6.7	
360	258	6.3	9.5	10.4	229	1000	140	0	9.4	287	1330	6.3	
380	258	6.1	9.5	9.7	229	830	0	0	8.7	286	1300	5.9	
400	258	5.9	9.0	9.0	229	670	0	0	7.9	286	1320	5.6	

BADA PERFORMANCE FILE										98/03/12			
AC/Type: SH36__					Last BADA Revision: 3.0								
					Source OPF File: 3.0					98/03/12			
					Source APF file: 3.0					98/03/12			
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA			
climb - 140/140 0.32					low - 9444								
cruise - 180/180 0.33					nominal - 11300					Max Alt. [ft]: 20000			
descent - 160/160 0.36					high - 12292								
FL	CRUISE				CLIMB				DESCENT				
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]		
		lo	nom	hi		lo	nom	hi			nom	nom	nom
0					134	1530	1250	1130	9.6	114	470	4.1	
5					141	1460	1190	1100	9.5	115	480	4.1	
10					142	1410	1170	1080	9.4	121	490	4.1	
15					143	1320	1150	1060	9.4	132	530	4.1	
20					144	1300	1120	1030	9.3	164	730	4.1	
30	188	5.0	5.4	5.7	146	1250	1080	990	9.1	167	750	4.1	
40	191	5.1	5.5	5.7	148	1200	1030	940	8.9	170	770	4.1	
60	196	5.2	5.7	5.9	153	1110	940	850	8.6	175	800	4.1	
80	202	5.4	5.8	6.1	158	1010	840	750	8.2	180	830	4.1	
100	209	5.5	6.0	6.3	163	910	740	660	7.8	186	700	4.1	
120	209	5.3	5.8	6.1	168	810	650	560	7.5	191	740	4.1	
140	207	5.1	5.6	5.9	173	710	550	470	7.1	197	790	4.1	
160	206	4.8	5.4	5.7	179	610	450	370	6.8	204	830	4.1	
180	204	4.6	5.2	5.6	184	510	350	270	6.4	210	870	4.1	
200	202	4.5	5.1	5.5	191	410	260	170	6.1	217	920	4.1	
220	201	4.3	5.0	5.4	195	350	180	90	5.7	219	1000	4.1	
240	199	4.2	4.9	5.1	193	290	110	20	5.3	217	980	4.1	
260	198	4.1	4.7	4.7	192	220	40	0	5.0	216	980	4.1	
280	196	4.1	4.4	4.4	190	150	0	0	4.6	214	980	4.1	
300	194	4.1	4.1	4.1	188	70	0	0	4.3	212	990	4.1	
320													
340													
360													
380													
400													

BADA PERFORMANCE FILE										98/03/12		
AC/Type: SW3____					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]				Temperature:		ISA	
climb - 175/175				0.52	low - 3600							
cruise - 200/200				0.52	nominal - 4800				Max Alt. [ft]:		31000	
descent - 200/200				0.50	high - 5700							
=====												
FL	CRUISE					CLIMB					DESCENT	
	TAS	fuel			TAS	ROCD			fuel	TAS	ROCD	fuel
	[kts]	[kg/min]			[kts]	[fpm]			[kg/min]	[kts]	[fpm]	[kg/min]
		lo	nom	hi		lo	nom	hi	nom		nom	nom
=====												
0					133	4970	3880	3330	8.9	108	340	3.8
5					144	4860	3750	3190	8.8	108	350	3.8
10					150	4780	3650	3100	8.7	114	380	3.7
15					179	3870	3170	2800	8.5	125	460	3.7
20					180	3830	3140	2770	8.5	157	820	3.7
30	209	3.7	3.9	4.1	183	3750	3060	2700	8.4	209	1910	3.6
40	212	3.7	3.9	4.1	185	3660	2990	2630	8.3	212	1950	3.5
60	218	3.8	4.0	4.2	191	3500	2840	2490	8.0	218	2020	3.4
80	225	3.9	4.1	4.3	197	3330	2700	2350	7.8	225	1360	3.2
100	232	4.0	4.2	4.4	203	3160	2550	2210	7.6	232	1460	3.1
120	239	4.1	4.3	4.5	209	2990	2400	2070	7.4	239	1550	3.0
140	246	4.1	4.4	4.6	216	2810	2250	1930	7.2	246	1640	2.8
160	254	4.2	4.5	4.7	223	2640	2090	1780	7.0	254	1730	2.7
180	262	4.3	4.5	4.8	230	2470	1940	1640	6.8	262	1820	2.6
200	271	4.4	4.6	4.9	237	2290	1780	1490	6.6	271	1920	2.4
220	279	4.5	4.7	5.0	245	2110	1630	1350	6.4	279	2010	2.3
240	289	4.5	4.8	5.1	253	1940	1470	1200	6.2	289	2110	2.1
260	298	4.6	4.9	5.2	262	1760	1320	1050	6.0	298	2200	2.0
280	308	4.7	5.0	5.2	271	1580	1160	900	5.8	297	2370	1.9
300	306	4.3	4.7	4.9	281	1410	1000	750	5.6	294	2170	1.7
320	303	4.0	4.3	4.7	290	1230	850	600	5.4	292	1990	1.6
340	301	3.7	4.1	4.4	301	1250	820	540	5.3	289	1840	1.5
360	298	3.4	3.8	4.2	298	1350	880	570	5.1	287	1720	1.3
380	298	3.2	3.7	4.1	298	1340	860	540	5.0	286	1580	1.2
400	298	3.0	3.5	4.0	298	1360	850	500	4.8	286	1530	1.2

## BADA PERFORMANCE FILE

98/03/12

AC/Type: T134\_\_

Last BADA Revision: 3.0

Source OPF File: 3.0

Source APF file: 3.0

98/03/12

98/03/12

Speeds: CAS(LO/HI) Mach Mass Levels [kg] Temperature: ISA  
 climb - 250/270 0.74 low - 36000  
 cruise - 250/270 0.78 nominal - 42000 Max Alt. [ft]: 39000  
 descent - 250/270 0.78 high - 47000

FL	CRUISE				CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			TAS [kts]	ROCD [fpm]	fuel [kg/min]
		lo	nom	hi		lo	nom	hi		nom	nom
0					159	2160	2230	2090	150	940	20.5
5					160	2140	2200	2060	152	940	20.5
10					161	2110	2180	2040	158	940	20.5
15					168	2200	2240	2090	169	950	20.5
20					169	2170	2210	2060	201	1030	20.5
30	261	29.6	32.3	34.8	192	2510	2470	2300	230	1170	20.5
40	265	29.7	32.3	34.8	227	2920	2780	2570	233	1180	20.5
60	272	29.7	32.4	34.9	272	3340	2920	2620	240	1210	20.5
80	280	29.7	32.4	35.0	280	3160	2750	2460	280	1470	20.5
100	289	29.8	32.5	35.1	289	2970	2580	2300	289	1500	20.5
120	321	32.6	35.0	37.3	321	2820	2450	2190	321	1740	20.5
140	330	32.7	35.0	37.3	330	2620	2260	2010	330	1770	20.5
160	340	32.7	35.1	37.4	340	2410	2070	1830	340	1810	20.5
180	351	32.7	35.1	37.4	351	2200	1880	1650	351	960	20.5
200	362	32.7	35.1	37.5	362	1990	1680	1460	362	1040	20.5
220	373	32.7	35.2	37.5	373	1790	1490	1280	373	1110	20.5
240	385	32.7	35.2	37.6	385	1580	1300	1100	385	1180	20.5
260	397	32.7	35.2	37.6	397	1370	1110	920	397	1240	20.5
280	410	32.6	35.2	37.7	410	1170	920	740	410	1310	20.5
300	423	32.6	35.2	37.7	423	960	730	560	423	1380	20.5
320	437	32.6	35.2	37.7	432	1070	770	530	437	1440	20.5
340	451	32.5	35.2	37.8	428	890	580	350	451	1510	20.5
360	447	31.0	33.9	36.3	424	700	390	150	447	2060	20.5
380	447	29.7	33.0	33.3	424	480	190	0	447	1880	20.5
400	447	28.8	30.4	30.4	424	300	0	0	447	1880	20.5

BADA PERFORMANCE FILE										98/03/12			
AC/Type: T154__					Last BADA Revision: 3.0								
					Source OPF File: 3.0					98/03/12			
					Source APF file: 3.0					98/03/12			
Speeds: CAS(LO/HI) Mach					Mass Levels [kg]					Temperature: ISA			
climb - 250/297 0.80					low - 66360								
cruise - 250/297 0.80					nominal - 85000					Max Alt. [ft]: 41000			
descent - 250/270 0.80					high - 100000								
FL	CRUISE					CLIMB					DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]			fuel [kg/min]	TAS [kts]	ROCD [fpm]		
		lo	nom	hi		lo	nom	hi			nom	nom	
0					165	2680	2560	2280	147.5	152	1190	37.4	
5					166	2660	2550	2260	146.7	154	1200	37.4	
10					167	2650	2530	2240	145.9	160	1190	37.4	
15					173	2770	2620	2320	147.2	171	1190	37.4	
20					175	2750	2600	2300	146.4	203	1250	37.4	
30	261	44.2	51.5	58.7	198	3220	2940	2590	153.3	230	1370	37.4	
40	265	44.6	51.9	59.2	233	3800	3350	2940	164.3	233	1390	37.4	
60	272	45.3	52.8	60.2	272	4530	3570	3000	173.4	240	1420	37.4	
80	280	46.0	53.7	61.3	280	4390	3440	2880	169.6	280	1680	37.4	
100	289	46.8	54.6	62.4	289	4240	3310	2760	165.6	289	1720	37.4	
120	352	64.7	71.1	77.4	352	4230	3340	2820	180.3	321	1960	37.4	
140	362	65.7	72.3	78.8	362	4030	3170	2660	175.8	330	2000	37.4	
160	373	66.8	73.5	80.2	373	3820	2990	2490	171.2	340	2030	37.4	
180	385	67.8	74.8	81.6	385	3610	2800	2320	166.4	351	2070	37.4	
200	396	68.9	76.0	83.0	396	3380	2610	2140	161.5	362	1090	37.4	
220	408	70.0	77.3	84.5	408	3150	2410	1960	156.4	373	1160	37.4	
240	421	71.1	78.6	86.1	421	2900	2200	1770	151.2	385	1230	37.4	
260	434	72.2	80.0	87.6	434	2660	1980	1570	145.7	397	1300	37.4	
280	448	73.3	81.3	89.3	448	2400	1760	1370	140.1	410	1370	37.4	
300	462	74.4	82.7	90.9	462	2140	1540	1160	134.2	423	1450	37.4	
320	467	72.5	81.4	90.1	467	2720	1900	1370	126.3	437	1520	37.4	
340	463	68.2	77.9	87.4	463	2440	1630	1100	116.6	451	1600	37.4	
360	458	64.4	75.0	85.4	458	2140	1350	810	107.0	458	2330	37.4	
380	458	61.8	73.3	84.8	458	1680	960	470	98.3	458	2140	37.4	
400	458	59.6	72.4	84.9	458	1380	670	160	89.6	458	2170	37.4	

BADA PERFORMANCE FILE										98/03/12		
AC/Type: TRIN__					Last BADA Revision: 3.0							
					Source OPF File: 3.0					98/03/12		
					Source APF file: 3.0					98/03/12		
Speeds:		CAS(LO/HI)		Mach	Mass Levels [kg]			Temperature:		ISA		
climb -		95/ 95		0.35	low - 1200							
cruise -		150/150		0.35	nominal - 1335			Max Alt. [ft]:		12000		
descent -		150/150		0.35	high - 1335							
FL	CRUISE					CLIMB				DESCENT		
	TAS [kts]	fuel [kg/min]			TAS [kts]	ROCD [fpm]		fuel [kg/min]	TAS [kts]	ROCD [fpm]	fuel [kg/min]	
		lo	nom	hi		lo	nom					hi
0					95	1460	1340	1340	0.7	74	190	0.5
5					96	1480	1310	1310	0.7	79	200	0.5
10					96	1440	1280	1280	0.7	90	230	0.5
15					97	1410	1250	1250	0.7	153	650	0.5
20					98	1370	1210	1210	0.7	154	660	0.5
30	157	0.7	0.7	0.7	99	1300	1140	1140	0.7	157	670	0.5
40	159	0.7	0.7	0.7	101	1220	1070	1070	0.7	159	680	0.5
60	164	0.7	0.7	0.7	104	1060	930	930	0.7	164	700	0.5
80	169	0.7	0.7	0.7	107	880	770	770	0.7	169	720	0.5
100	174	0.7	0.7	0.7	110	700	610	610	0.7	174	740	0.5
120	180	0.7	0.7	0.7	114	510	430	430	0.7	180	760	0.5
140	185	0.7	0.7	0.7	118	300	240	240	0.7	185	780	0.5
160	191	0.7	0.7	0.7	121	80	50	50	0.7	191	810	0.5
180												
200												
220												
240												
260												
280												
300												
320												
340												
360												
380												
400												