

EMB120 Brasilia



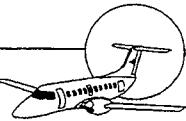
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SUPPLEMENTARY PERFORMANCE MANUAL

**PW118A/B ENGINES
WEIGHT UNITS IN KILOGRAMS**

**SPM – 120/1090
20 NOVEMBER 1992
REVISION 3 – 05 AUGUST 1999**



EMBRAER
EMB120 Brasilia

APPLICABILITY

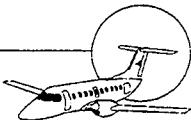
SUPPLEMENTARY PERFORMANCE MANUAL

APPLICABILITY

This publication is applicable to the EMB-120 Brasilia ER and RT airplanes equipped with Pratt & Whitney PW118A/B engines with the fuel indication provided in kilograms.

Only those ER airplanes are authorized to operate on the 11990 kg maximum takeoff weight limit.

Models RT must operate on the original 11500 kg limit.

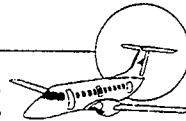
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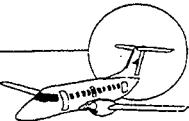


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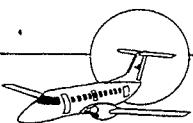
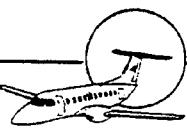
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TITLES IN CAPITAL LETTERS ARE TABLES
TITLES IN LOWER CASE LETTERS ARE TEXTS



EMBRAER
EMB120 Brasilia

INTRODUCTION

SUPPLEMENTARY PERFORMANCE MANUAL

INTRODUCTION

This publication presents the supplementary performance data applicable to the EMB-120 Brasilia. The supplementary performance provides flight planning data in tabulated format, ranging from long range cruise to maximum speed cruise. The data is presented by phase of flight, and enables the determination of fuel and time, as well as torque and airspeed for the prevailing ambient conditions.

For determination of takeoff and landing gross weight, refer to the Airplane Flight Manual.

**SUPPLEMENTARY PERFORMANCE
MANUAL****OPERATING DATA**

This publication contains conversion tables and graphs with general information for dispatch and inflight use.

- Standard Atmosphere Table

It provides the properties of ICAO standard atmosphere tabulated in 1000 ft increments, from zero to 35000 ft.

References on temperature, pressure, air density and speed of sound ratio are given.

- ISA Conversion

It may be used to find the temperature deviation from standard temperature by entering the chart with known ambient temperature and pressure altitude.

- Units Conversion Table

It provides the means for the direct temperature conversion from degrees Centigrade to Fahrenheit; distance and speed conversion from feet, nautical miles, and feet per second and feet per minute to their metrical system equivalents, that is, meters, kilometers, meters per second and meters per minute, respectively.

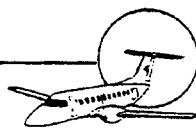
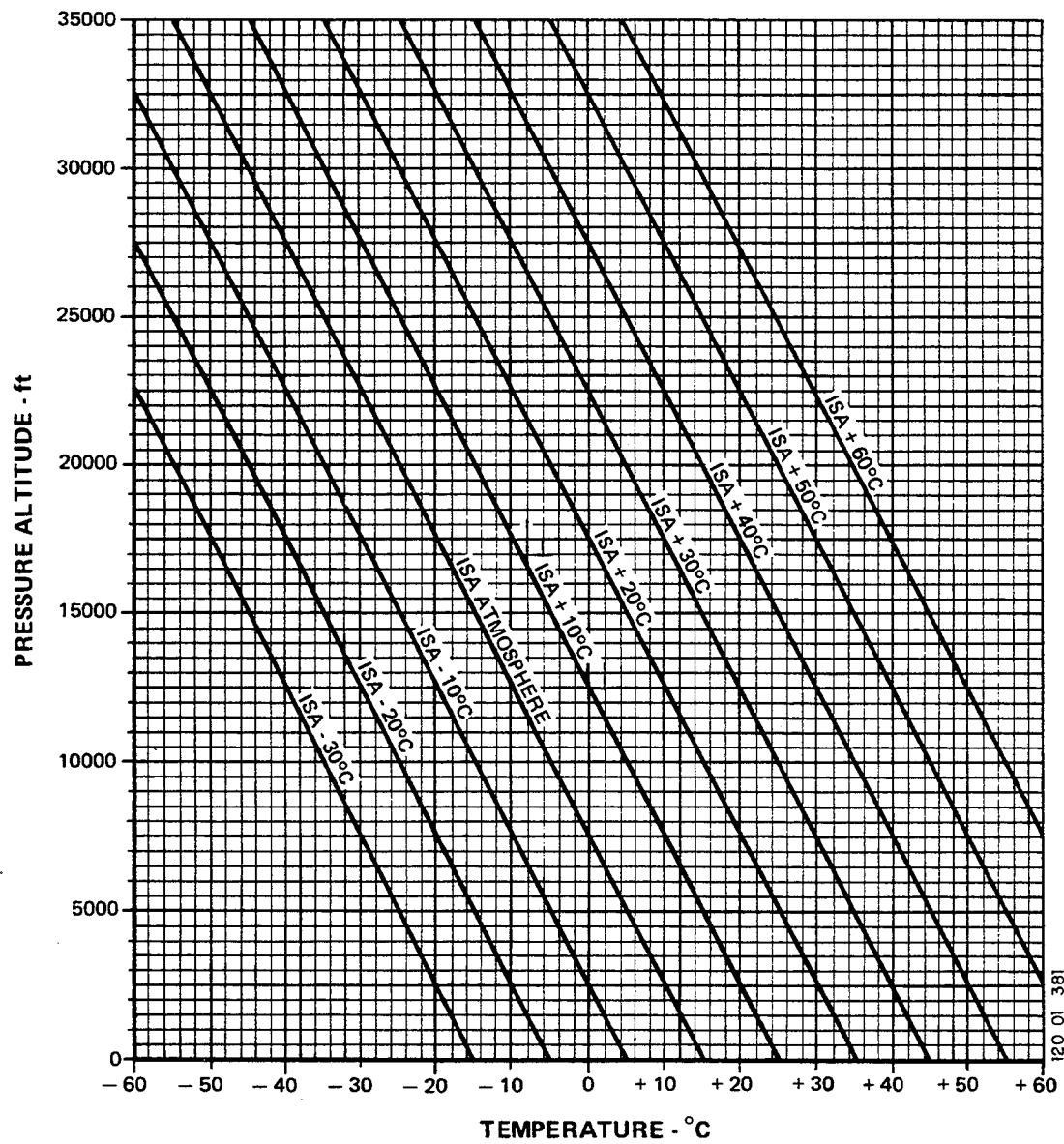
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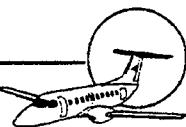
STANDARD ATMOSPHERE TABLE

This table is based on NACA Technical Report No. 3182

Standard Sea Level Atm			P = 29.92 in of Hg				$P_0 = .002378 \text{ slugs/cu.ft}$	
			$t_0 = 15^\circ\text{C}$		$c_0 = 661 \text{ knots}$			
Altitude Feet	P Pressure in of Hg	δ (p/p_0) Pressure Ratio	t Temperature		σ (ρ/ρ_0) Density Ratio	$\frac{1}{\sqrt{\sigma}}$	c/c_0 Speed of Sound Ratio	
			Deg C	Deg F				
0	29.92	1.0000	15.0	59.0	1.0000	1.0000	1.0000	
1000	28.86	.9644	13.0	55.4	.9711	1.0148	.9966	
2000	27.82	.9298	11.0	51.9	.9428	1.0299	.9931	
3000	26.82	.8962	9.1	48.3	.9151	1.0454	.9896	
4000	25.84	.8637	7.1	44.7	.8881	1.0611	.9862	
5000	24.90	.8320	5.1	41.2	.8617	1.0773	.9827	
6000	23.98	.8014	3.1	37.6	.8359	1.0938	.9792	
7000	23.09	.7716	1.1	34.0	.8106	1.1107	.9756	
8000	22.22	.7428	-8	30.5	.7860	1.1279	.9721	
9000	21.39	.7148	-2.8	26.9	.7620	1.1456	.9686	
10000	20.58	.6877	-4.8	23.3	.7385	1.1637	.9650	
11000	19.79	.6614	-6.8	19.8	.7156	1.1822	.9614	
12000	19.03	.6360	-8.8	16.2	.6932	1.2011	.9579	
13000	18.29	.6113	-10.8	12.6	.6713	1.2205	.9543	
14000	17.58	.5874	-12.7	9.1	.6500	1.2403	.9506	
15000	16.89	.5643	-14.7	5.5	.6292	1.2606	.9470	
16000	16.22	.5420	-16.7	1.9	.6090	1.2815	.9434	
17000	15.57	.5203	-18.7	-1.6	.5892	1.3028	.9397	
18000	14.94	.4994	-20.7	-5.2	.5699	1.3246	.9361	
19000	14.34	.4791	-22.6	-8.8	.5511	1.3470	.9324	
20000	13.75	.4595	-24.6	-12.3	.5328	1.3700	.9287	
21000	13.18	.4406	-26.6	-15.9	.5150	1.3935	.9250	
22000	12.64	.4223	-28.6	-19.5	.4976	1.4176	.9213	
23000	12.11	.4046	-30.6	-23.0	.4806	1.4424	.9175	
24000	11.60	.3876	-32.5	-26.6	.4642	1.4678	.9138	
25000	11.10	.3711	-34.5	-30.2	.4481	1.4938	.9100	
26000	10.63	.3552	-36.5	-33.7	.4325	1.5206	.9062	
27000	10.17	.3398	-38.5	-37.3	.4173	1.5480	.9024	
28000	9.725	.3250	-40.5	-40.9	.4025	1.5762	.8986	
29000	9.297	.3107	-42.5	-44.4	.3881	1.6052	.8948	
30000	8.885	.2970	-44.4	-48.0	.3741	1.6349	.8909	
31000	8.488	.2837	-46.4	-51.6	.3605	1.6654	.8870	
32000	8.106	.2709	-48.4	-55.1	.3473	1.6968	.8832	
33000	7.737	.2586	-50.4	-58.7	.3345	1.7291	.8793	
34000	7.382	.2467	-52.4	-62.2	.3220	1.7623	.8754	
35000	7.041	.2353	-54.3	-65.8	.3099	1.7964	.8714	

**ISA CONVERSION**

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUAL
UNITS CONVERSION TABLE

TEMPERATURE		DISTANCE			SPEED						
°C	°F	FEET	METERS	NAUT MILES	km	KNOTS	FEET PER SEC	FEET PER MIN	METERS PER SEC	METERS PER MIN	KNOTS
100	200	15,000	4500	3000	5500	700	70,000	360	20,000	700	
90	190	14,000	4000		5000		1100		320		
80	170	13,000	2500		4500		600	60,000	280		
70	160	12,000	3500		4000		500	50,000	240		
60	140	10,000	3000	2000	3500		800	40,000	200		
50	120	9,000			3000		700	30,000	160		
40	100	8,000	2500		2500		400	20,000	120		
30	80	7,000	2000		2000		300	10,000	80		
20	60	6,000			1500		200	8,000	40		
10	40	5,000	1500		1500		100	4,000			
0	20	4,000			1000						
-10	0	3,000			1000						
-20		2,000	500		500						
-30		1,000			500						
-40											
-50											

NOTE: TO CONVERT LITERS TO U.S. GAL, MULTIPLY BY 0.264
TO CONVERT LITERS TO IMP. GAL, MULTIPLY BY 0.220
TO CONVERT MILLIBARS TO INCHES OF MERCURY, MULTIPLY BY 0.0295
TO CONVERT KILOGRAMS TO POUNDS, MULTIPLY BY 2.205
TO CONVERT POUNDS TO KILOGRAMS, MULTIPLY BY 0.454
TO CONVERT KILOMETERS TO STATUTE MILES, MULTIPLY BY 0.621
TO CONVERT KILOMETERS TO NAUTICAL MILES, MULTIPLY BY 0.540



SUPPLEMENTARY PERFORMANCE MANUAL

FLIGHT PLANNING TABLES DESCRIPTION

The following tables provide information for flight planning and cruise control at various parameters of weight, power, altitude, and temperature. The tables included are Climb Torque Setting, Climb Planning, Long Range, Maximum Speed and Intermediate Cruise Flight Planning, Long Range, Maximum Speed and Intermediate Cruise Control, Descent and Holding.

CLIMB TORQUE SETTING

The Climb Torque Setting tables are presented for various altitudes and indicated outside air temperature.

They are divided into two specific tables concerning the applicable N_p settings:

- Climb Torque Setting table for N_p = 100%.
- Climb Torque Setting table for N_p = 100% up to 12000 ft and 90% above 12000 ft.

Associated Conditions:

- Airspeed: 155 KIAS from SL to 20000 ft, decreasing linearly to 135 KIAS at 32000 ft (auto-pilot climb mode) or 170 KIAS at SL, decreasing linearly to 155 KIAS at 20000 ft, 155 KIAS above 20000 ft.
- Bleed Switch: AUTO
- Pack Control Selector: LOW

CLIMB PLANNING

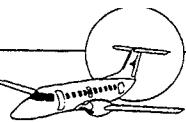
The Climb Planning tables show the fuel consumption, distance, and time elapsed from the brake release to the top of climb, for various weights, ISA deviations and cruise altitudes.

The tables are presented separately for two distinct airspeed schedules:

- Airspeed: 155 KIAS from SL to 20000 ft, decreasing linearly to 135 KIAS at 32000 ft (auto-pilot climb mode).
- Airspeed: 170 KIAS at SL, decreasing linearly to 155 KIAS at 20000 ft, 155 KIAS above 20000 ft.

Associated Conditions:

- Two engines operating
- N_p: 100% or
 - 100% up to 12000 ft and
 - 90% above 12000 ft.
- Bleed Switch: AUTO
- Pack Control Selector: LOW



SUPPLEMENTARY PERFORMANCE MANUAL

FLIGHT PLANNING TABLES DESCRIPTION (Continued)

FLIGHT PLANNING

Flight Planning tables present the true airspeed and the total fuel consumption, for various weights, pressure altitude and ISA deviations. The One Engine Inoperative tables are presented in the long range cruise schedule. The All Engines Operating tables are presented in the long range cruise, maximum speed cruise and intermediate cruise schedules.

Associated Conditions:

- Np: 85% (all engines operating), 100% (one engine inoperative)
- Bleed Switch: AUTO
- Pack Control Selector: LOW

CRUISE CONTROL

Cruise Control tables present the indicated airspeed, the required torque, and the fuel flow per engine per hour, for various weights, pressure altitude and indicated outside air temperature (IOAT). The One Engine Inoperative tables are presented in the long range cruise schedule. The All Engines Operating tables are presented in the long range cruise, maximum speed cruise and intermediate cruise schedules.

Associated Conditions:

- Np: 85% (all engines operating), 100% (one engine inoperative)
- Bleed Switch: AUTO
- Pack Control Selector: LOW

The All Engines Operating tables in the long range cruise schedule are also presented for the landing gear down and flaps up configuration.

Associated Conditions:

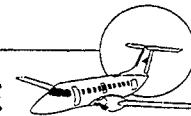
- Np: 85% (all engines operating)
- Bleed Switch: AUTO
- Pack Control Selector: LOW

DESCENT

Descent tables show the total fuel consumption, distance, and time elapsed from the top of descent to sea level for various cruise altitudes. Two tables are presented: one considering a rate of descent of 3000 ft/min and the other considering a rate of descent of 2000 ft/min (autopilot descent mode).

Associated Conditions:

- Airspeed: V_{MO} or 250 KIAS, whichever is lower
- Np: 85%
- Bleed Switch: AUTO
- Pack Control Selector: LOW



SUPPLEMENTARY PERFORMANCE MANUAL

FLIGHT PLANNING TABLES DESCRIPTION (Continued)

HOLDING

Holding tables present the torque settings, fuel flow per engine, fuel consumption, and air-speeds, in two engines and one engine operating configurations, for various pressure altitudes and weights at standard atmosphere.

Associated Conditions:

- Airspeed: 1.3 V_S
- Np: 85% (all engines operating), 100% (one engine inoperative)
- Bleed Switch: AUTO
- Pack Control Selector: LOW

ADOPTED SCHEDULES

Long Range Cruise:

In this schedule the airplane is flown in a speed corresponding to a specific range equal to 99% of maximum specific range. It is used when range is the overall factor.

Maximum Speed Cruise:

In this schedule the airplane is flown in a speed resulting from maximum cruise power setting. It is used when minimum flight time is desired.

Intermediate Cruise:

In the intermediate cruise the airplane is flown according to the following torque schedule:

- From SL to 10000 ft, the torque is constant and equal to 65%.
- Above 10000 ft, the torque setting is calculated based on the following formula: long range cruise torque + 2/3 (maximum speed cruise torque – long range cruise torque).

EXAMPLE

The tables are used as follows:

- Flight Planning for Maximum Speed
- All Engines
- Cruise Altitude: 10000 ft
- Cruise Weight: 10000 kg
- Cruise Temperature: ISA – 20°C
- Results: True Airspeed = 276 kt
Total Fuel Consumption: 601 kg/h



EMBRAER
EMB120 Brasilia

FLIGHT PLANNING

SUPPLEMENTARY PERFORMANCE
MANUAL

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

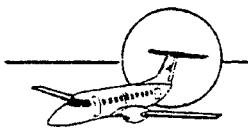
ALTITUDE: 10000 FT

WEIGHT
KG

ISA + °C

				-50	-40	-30	-20	-10	0	10	20	30	40
12000	TAS	KT	KG/H	265	268	271	275	278	281	284	286	278	265
	TOTAL	FC		592	595	598	601	604	607	609	613	571	522
11500	TAS	KT	KG/H	265	268	272	275	278	281	284	287	280	266
	TOTAL	FC		592	595	598	601	604	607	609	613	572	522
11000	TAS	KT	KG/H	265	268	272	275	279	282	285	287	280	268
	TOTAL	FC		592	595	598	601	604	607	609	613	572	523
10500	TAS	KT	KG/H	266	269	272	276	279	282	285	289	281	270
	TOTAL	FC		592	595	598	601	604	607	609	613	572	523
10000	TAS	KT	KG/H	266	269	272	276	279	282	285	289	282	271
	TOTAL	FC		592	595	598	601	604	607	609	613	573	523
9500	TAS	KT	KG/H	265	269	273	276	279	282	285	289	282	271
	TOTAL	FC		592	595	598	601	604	607	609	613	573	523
9000	TAS	KT	KG/H	266	269	273	276	279	282	286	289	282	272
	TOTAL	FC		592	595	598	601	604	607	609	613	573	524
8500	TAS	KT	KG/H	266	270	273	277	280	283	286	289	283	272
	TOTAL	FC		592	595	598	601	604	607	609	613	573	524
8000	TAS	KT	KG/H	266	269	273	277	280	283	286	290	283	273
	TOTAL	FC		592	595	598	601	604	607	609	613	573	524

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SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB TORQUE SETTING

ALL ENGINES OPERATING

PW118A ENGINES

CRUISE CONFIGURATION

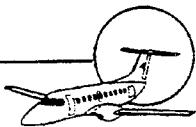
NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

PRESSURE ALTITUDE FT	CLIMB TORQUE SETTING - % IOAT (°C)											
	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	
0	84	84	84	84	84	84	84	84	84	84	84	
2000	84	84	84	84	84	84	84	84	84	84	84	
4000	84	84	84	84	84	84	84	84	84	84	84	
6000	84	84	84	84	84	84	84	84	84	84	84	
8000	84	84	84	84	84	84	84	84	84	84	84	
10000	84	84	84	84	84	84	84	84	84	84	84	
12000	84	84	84	84	84	84	84	84	84	84	84	
14000	84	84	84	84	84	84	84	84	84	81	77	
16000	84	84	84	84	84	84	84	81	78	74	71	
18000	84	84	84	84	84	81	78	75	72	69	66	
20000	84	84	83	80	78	75	72	69	66	63	60	
22000	82	79	77	74	72	69	67	64	61	58	56	
24000	76	73	71	69	66	64	61	59	56	54	51	
26000	70	68	65	63	61	59	56	54	52	49	47	
28000	64	62	60	58	56	54	52	50	47	45	42	
30000	59	57	55	53	51	49	47	45	43	41	39	
32000	54	52	50	49	47	45	43	41	39	37	36	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB TORQUE SETTING
ALL ENGINES OPERATING
PW118A ENGINES

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

PRESSURE ALTITUDE FT	CLIMB TORQUE SETTING - % IOAT (°C)										
	5	10	15	20	25	30	35	40	45	50	55
0	84	84	84	84	84	84	84	84	80	75	69
2000	84	84	84	84	84	84	84	80	74	69	64
4000	84	84	84	84	84	83	78	74	69	64	59
6000	84	84	84	84	82	77	72	68	63	59	-
8000	84	84	84	80	75	71	67	63	58	-	-
10000	84	82	78	74	70	66	62	58	-	-	-
12000	80	76	72	68	64	60	57	53	-	-	-
14000	74	70	66	63	59	56	52	-	-	-	-
16000	68	64	61	57	54	51	-	-	-	-	-
18000	63	59	56	53	50	-	-	-	-	-	-
20000	57	54	51	48	45	-	-	-	-	-	-
22000	53	50	47	44	-	-	-	-	-	-	-
24000	48	45	43	-	-	-	-	-	-	-	-
26000	44	42	-	-	-	-	-	-	-	-	-
28000	40	38	-	-	-	-	-	-	-	-	-
30000	37	-	-	-	-	-	-	-	-	-	-
32000	-	-	-	-	-	-	-	-	-	-	-

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SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB TORQUE SETTING

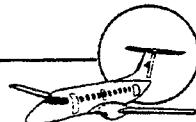
ALL ENGINES OPERATING

PW118A ENGINES

CRUISE CONFIGURATION
NP: 100% UP TO 12000 FT
90% ABOVE 12000 FT
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

PRESSURE ALTITUDE FT	CLIMB TORQUE SETTING - % IOAT (°C)											
	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	
0	84	84	84	84	84	84	84	84	84	84	84	
2000	84	84	84	84	84	84	84	84	84	84	84	
4000	84	84	84	84	84	84	84	84	84	84	84	
6000	84	84	84	84	84	84	84	84	84	84	84	
8000	84	84	84	84	84	84	84	84	84	84	84	
10000	84	84	84	84	84	84	84	84	84	84	84	
12000	84	84	84	84	84	84	84	84	84	84	84	
14000	84	84	84	84	84	84	84	84	84	84	84	
16000	84	84	84	84	84	84	84	84	84	83	80	
18000	84	84	84	84	84	84	84	83	80	77	74	
20000	84	84	84	84	84	83	80	77	74	71	68	
22000	84	84	84	82	79	77	74	71	68	65	62	
24000	83	81	78	76	73	71	68	65	63	60	57	
26000	77	74	72	70	68	65	62	60	58	55	52	
28000	71	68	66	64	62	60	57	55	53	50	48	
30000	65	63	61	59	57	55	52	50	48	46	44	
32000	59	57	56	54	52	50	48	46	44	42	40	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB TORQUE SETTING
ALL ENGINES OPERATING
PW118A ENGINES

CRUISE CONFIGURATION

NP: 100% UP TO 12000 FT

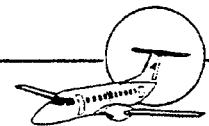
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

PRESSURE ALTITUDE FT	CLIMB TORQUE SETTING - % IOAT (°C)										
	5	10	15	20	25	30	35	40	45	50	55
0	84	84	84	84	84	84	84	84	80	75	69
2000	84	84	84	84	84	84	84	80	74	69	64
4000	84	84	84	84	84	83	78	74	69	64	59
6000	84	84	84	84	82	77	72	68	63	59	-
8000	84	84	84	80	75	71	67	63	58	-	-
10000	84	82	78	74	70	66	62	58	-	-	-
12000	80	76	72	68	64	60	57	53	-	-	-
14000	83	79	75	71	67	63	60	-	-	-	-
16000	76	73	69	65	62	58	-	-	-	-	-
18000	70	67	63	60	57	-	-	-	-	-	-
20000	64	61	58	55	52	-	-	-	-	-	-
22000	59	56	53	50	-	-	-	-	-	-	-
24000	54	51	49	-	-	-	-	-	-	-	-
26000	50	47	-	-	-	-	-	-	-	-	-
28000	45	43	-	-	-	-	-	-	-	-	-
30000	41	-	-	-	-	-	-	-	-	-	-
32000	-	-	-	-	-	-	-	-	-	-	-

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 5000 FT

CRUISE CONFIGURATION

NP: 100% OR

100% UP TO 12000 FT AND

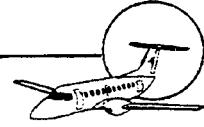
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

WEIGHT KG			ISA + °C										
			-60	-40	-30	-20	-10	0	10	20	30	40	
12000	FUEL	KG	23	26	28	30	31	33	35	37	44	56	
	DISTANCE	NM	5	5	6	6	7	7	8	8	11	15	
	TIME	MIN	2	2	2	2	3	3	3	3	4	5	
11500	FUEL	KG	22	25	26	28	29	31	32	34	40	51	
	DISTANCE	NM	4	5	5	6	6	7	7	8	10	14	
	TIME	MIN	2	2	2	2	2	2	3	3	3	5	
11000	FUEL	KG	21	23	24	26	27	29	30	32	37	46	
	DISTANCE	NM	4	5	5	5	6	6	7	7	9	12	
	TIME	MIN	2	2	2	2	2	2	2	3	3	4	
10500	FUEL	KG	19	22	23	24	25	27	28	30	34	42	
	DISTANCE	NM	4	4	5	5	5	6	6	7	8	11	
	TIME	MIN	2	2	2	2	2	2	2	2	3	4	
10000	FUEL	KG	18	20	21	22	24	25	26	28	32	39	
	DISTANCE	NM	3	4	4	5	5	6	6	8	10	14	
	TIME	MIN	1	2	2	2	2	2	2	3	3	4	
9500	FUEL	KG	17	19	20	21	22	23	24	26	29	36	
	DISTANCE	NM	3	4	4	5	5	6	6	7	10	13	
	TIME	MIN	1	2	2	2	2	2	2	3	3	3	
9000	FUEL	KG	16	18	18	19	20	21	23	24	27	33	
	DISTANCE	NM	3	3	4	4	5	5	5	7	9	13	
	TIME	MIN	1	1	2	2	2	2	2	2	2	3	
8500	FUEL	KG	15	16	17	18	19	20	21	22	25	30	
	DISTANCE	NM	3	3	3	4	4	5	5	6	8	13	
	TIME	MIN	1	1	1	1	2	2	2	2	2	3	
8000	FUEL	KG	14	15	16	17	18	19	19	20	23	28	
	DISTANCE	NM	3	3	3	3	4	4	4	5	6	7	
	TIME	MIN	1	1	1	1	1	1	2	2	2	3	

**CLIMB PLANNING****ALL ENGINES OPERATING****PW118A ENGINES****ALTITUDE: SEA LEVEL TO 6000 FT**

CRUISE CONFIGURATION

NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
 DECREASING TO 135 KIAS AT
 32000 FT

			ISA + °C									
			-60	-40	-30	-20	-10	0	10	20	30	40
	FUEL	KG	28	32	33	35	37	39	41	44	53	67
	DISTANCE	NM	6	6	7	7	8	9	9	10	13	19
	TIME	MIN	2	3	3	3	3	3	3	4	5	6
12000	FUEL	KG	26	29	31	33	35	37	39	41	49	61
12000	DISTANCE	NM	5	6	6	7	7	8	8	9	12	17
12000	TIME	MIN	2	2	3	3	3	3	3	4	4	6
11000	FUEL	KG	25	28	29	31	32	34	36	38	45	56
11000	DISTANCE	NM	5	6	6	7	7	8	9	11	15	15
11000	TIME	MIN	2	2	2	3	3	3	3	4	4	5
10500	FUEL	KG	23	26	27	29	30	32	33	36	41	51
10500	DISTANCE	NM	5	5	6	6	6	7	8	10	14	14
10500	TIME	MIN	2	2	2	2	3	3	3	4	4	5
10000	FUEL	KG	21	24	25	27	28	30	31	33	38	47
10000	DISTANCE	NM	4	5	5	6	6	7	7	10	13	13
10000	TIME	MIN	2	2	2	2	2	3	3	3	3	4
9500	FUEL	KG	20	22	24	25	26	28	29	31	35	43
9500	DISTANCE	NM	4	5	5	6	6	7	7	9	12	12
9500	TIME	MIN	2	2	2	2	2	3	3	3	3	4
9000	FUEL	KG	19	21	22	23	24	26	27	29	33	39
9000	DISTANCE	NM	4	4	5	5	6	6	6	8	11	14
9000	TIME	MIN	2	2	2	2	2	2	2	3	3	4
8500	FUEL	KG	17	19	21	22	23	24	25	27	30	36
8500	DISTANCE	NM	3	4	4	5	5	5	6	7	10	10
8500	TIME	MIN	1	2	2	2	2	2	2	3	3	3
8000	FUEL	KG	16	18	19	20	21	22	23	25	28	33
8000	DISTANCE	NM	3	4	4	4	5	5	6	7	9	9
8000	TIME	MIN	1	1	2	2	2	2	2	2	2	3

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 7000 FT

CRUISE CONFIGURATION

NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

**SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT**

WEIGHT KG	ISA + °C																															
	-60			-40			-30			-20			-10			0			10			20			30			40				
FUEL KG	33	37	39	41	43	46	48	52	62	79	DISTANCE NM	7	8	8	9	9	10	11	12	16	22	TIME MIN	3	3	3	3	4	4	4	4	5	8
12000	30	34	36	38	40	43	45	48	57	72	79	6	7	8	8	9	10	11	14	20	22	30	33	35	38	40	42	45	48	50		
11500	28	32	34	36	38	40	42	45	53	66	79	6	7	7	8	8	9	9	10	13	18	20	27	29	31	33	35	38	40	42	45	48
11000	27	30	32	34	36	38	40	42	50	63	79	5	6	7	8	8	9	9	10	13	18	20	27	29	31	33	35	38	40	42	45	48
10500	25	28	30	32	33	35	37	39	47	60	79	5	6	7	8	8	9	9	10	12	17	20	27	29	31	33	35	38	40	42	45	48
10000	25	28	30	31	33	34	36	39	47	55	79	5	6	6	7	8	8	9	9	11	15	17	27	29	31	33	35	38	40	42	45	48
9500	23	26	28	29	31	32	34	36	44	50	79	5	5	6	6	7	7	7	8	11	14	15	27	29	31	33	35	38	40	42	45	48
9000	22	24	26	27	28	29	30	31	39	46	79	4	5	5	6	6	7	7	8	10	13	14	27	29	31	33	35	38	40	42	45	48
8500	20	23	24	25	25	26	28	29	37	42	79	4	5	5	6	6	7	7	8	9	12	14	27	29	31	33	35	38	40	42	45	48
8000	19	21	22	23	24	24	26	26	35	39	79	4	4	5	5	5	6	6	7	8	11	14	27	29	31	33	35	38	40	42	45	48



SUPPLEMENTARY PERFORMANCE MANUAL

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 8000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

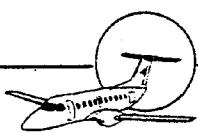
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

WEIGHT KG			ISA + °C									
			-60	-40	-30	-20	-10	0	10	20	30	40
12000	FUEL DISTANCE TIME	KG NM MIN	37 8 3	42 9 4	44 9 4	47 10 4	50 11 4	52 12 4	55 12 4	60 14 5	71 19 6	92 26 9
11500	FUEL DISTANCE TIME	KG NM MIN	35 7 3	39 8 3	41 9 4	44 9 4	46 10 4	49 11 4	51 12 4	55 13 5	66 17 6	83 24 8
11000	FUEL DISTANCE TIME	KG NM MIN	32 7 3	37 8 3	39 8 3	41 9 3	43 9 4	45 10 4	48 11 4	51 12 4	60 16 5	76 22 7
10500	FUEL DISTANCE TIME	KG NM MIN	30 6 3	34 7 3	36 8 3	38 8 3	40 9 3	42 9 3	44 10 4	48 11 4	56 14 5	69 20 7
10000	FUEL DISTANCE TIME	KG NM MIN	28 6 2	32 7 3	34 7 3	35 8 3	37 8 3	39 9 3	41 9 3	44 10 4	51 13 5	63 18 6
9500	FUEL DISTANCE TIME	KG NM MIN	26 5 2	30 6 2	31 7 3	33 7 3	35 8 3	37 8 3	38 9 3	41 10 3	48 12 4	58 17 6
9000	FUEL DISTANCE TIME	KG NM MIN	25 5 2	28 6 2	29 6 2	31 7 3	32 7 3	34 8 3	36 8 3	38 9 3	44 11 4	53 15 5
8500	FUEL DISTANCE TIME	KG NM MIN	23 5 2	26 5 2	27 6 2	29 6 2	30 7 2	32 7 3	33 7 3	35 8 3	41 10 4	49 14 5
8000	FUEL DISTANCE TIME	KG NM MIN	21 4 2	24 5 2	25 5 2	27 6 2	28 6 2	29 6 2	31 7 3	33 8 3	37 10 3	45 13 4

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 9000 FT

CRUISE CONFIGURATION

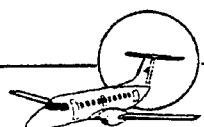
NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

WEIGHT KG	ISA + °C											
	-60	-40	-30	-20	-10	0	10	20	30	40		
12000	FUEL KG	42	47	50	53	56	59	62	68	81	104	
	DISTANCE NM	9	10	11	12	12	13	14	16	21	31	
	TIME MIN	4	4	4	4	5	5	5	6	7	10	
11500	FUEL KG	39	44	46	49	52	55	58	63	74	94	
	DISTANCE NM	8	9	10	11	12	12	13	15	20	28	
	TIME MIN	3	4	4	4	4	5	5	5	7	9	
11000	FUEL KG	36	41	43	46	48	51	54	58	68	86	
	DISTANCE NM	7	9	9	10	11	11	12	14	18	25	
	TIME MIN	3	3	4	4	4	4	4	5	6	9	
10500	FUEL KG	34	38	40	43	45	47	50	54	63	78	
	DISTANCE NM	7	8	9	9	10	11	11	13	17	23	
	TIME MIN	3	3	3	4	4	4	4	5	6	8	
10000	FUEL KG	32	36	38	40	42	44	46	50	58	71	
	DISTANCE NM	6	8	8	9	9	10	11	12	15	21	
	TIME MIN	3	3	3	3	4	4	4	4	5	7	
9500	FUEL KG	30	33	35	37	39	41	43	47	54	65	
	DISTANCE NM	6	7	8	8	9	10	11	14	19	26	
	TIME MIN	3	3	3	3	3	4	4	4	5	6	
9000	FUEL KG	28	31	33	35	36	38	40	43	50	60	
	DISTANCE NM	6	7	7	8	9	9	10	13	18	26	
	TIME MIN	2	3	3	3	3	3	4	4	5	6	
8500	FUEL KG	26	29	30	32	34	35	37	40	46	55	
	DISTANCE NM	5	6	6	7	8	8	10	12	16	18	
	TIME MIN	2	2	3	3	3	3	3	4	4	5	
8000	FUEL KG	24	27	28	30	31	33	34	37	42	50	
	DISTANCE NM	5	6	6	6	7	8	9	11	15	18	
	TIME MIN	2	2	2	2	3	3	3	4	4	5	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 10000 FT
CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
 DECREASING TO 135 KIAS AT
 32000 FT

**WEIGHT
KG**
ISA + °C

			-50	-40	-30	-20	-10	0	10	20	30	40
12000	FUEL DISTANCE TIME	KG NM MIN	49 10 4	52 11 4	55 12 5	58 13 5	62 14 5	65 15 5	69 16 6	76 19 6	91 25 8	117 35 12
11500	FUEL DISTANCE TIME	KG NM MIN	46 10 4	49 10 4	51 11 4	54 12 5	57 13 5	61 14 5	64 15 5	70 17 6	83 23 8	106 32 11
11000	FUEL DISTANCE TIME	KG NM MIN	43 9 4	45 10 4	48 10 4	51 11 4	54 12 4	56 13 5	59 14 5	65 16 6	77 21 7	96 29 10
10500	FUEL DISTANCE TIME	KG NM MIN	40 8 3	42 9 4	45 10 4	47 10 4	50 11 4	53 12 4	55 13 5	60 15 5	71 19 7	88 26 9
10000	FUEL DISTANCE TIME	KG NM MIN	37 8 3	40 8 3	42 9 4	44 10 4	46 10 4	49 11 4	51 12 4	56 14 5	65 18 6	80 24 8
9500	FUEL DISTANCE TIME	KG NM MIN	35 7 3	37 8 3	39 8 3	41 9 3	43 10 4	45 10 4	48 11 4	52 13 4	60 16 6	73 22 7
9000	FUEL DISTANCE TIME	KG NM MIN	32 7 3	34 7 3	36 8 3	38 8 3	40 9 3	42 10 4	44 10 4	48 12 4	55 15 5	67 20 7
8500	FUEL DISTANCE TIME	KG NM MIN	30 6 3	32 7 3	34 7 3	36 8 3	37 8 3	39 9 3	41 10 3	45 11 4	51 14 5	61 18 6
8000	FUEL DISTANCE TIME	KG NM MIN	28 6 2	30 6 3	31 7 3	33 7 3	35 8 3	36 8 3	38 9 3	41 10 4	47 13 4	56 17 6

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SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 11000 FT

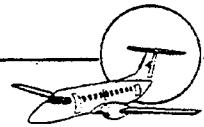
CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

WEIGHT KG			ISA + °C										
			-50	-40	-30	-20	-10	0	10	20	30	40	
12000	FUEL DISTANCE TIME	KG NM MIN	54 12 5	57 12 5	61 13 5	64 14 5	68 16 6	71 17 6	76 18 6	84 21 7	101 28 9	131 40 13	
11500	FUEL DISTANCE TIME	KG NM MIN	50 11 4	53 12 5	56 13 5	60 13 5	63 14 5	67 15 6	70 17 6	78 20 7	93 26 9	118 36 12	
11000	FUEL DISTANCE TIME	KG NM MIN	47 10 4	50 11 4	53 12 4	56 13 5	59 13 5	62 14 5	65 15 5	72 18 6	85 24 8	107 33 11	
10500	FUEL DISTANCE TIME	KG NM MIN	44 9 4	46 10 4	49 11 4	52 12 4	55 13 5	58 13 5	61 14 5	67 17 6	78 22 7	97 30 10	
10000	FUEL DISTANCE TIME	KG NM MIN	41 9 3	43 9 4	46 10 4	48 11 4	51 12 4	54 12 4	57 13 5	62 15 5	72 20 7	89 27 9	
9500	FUEL DISTANCE TIME	KG NM MIN	38 8 3	40 9 3	43 9 4	45 10 4	47 11 4	50 12 4	53 12 4	57 14 5	66 18 6	81 25 8	
9000	FUEL DISTANCE TIME	KG NM MIN	36 7 3	38 8 3	40 9 3	42 9 4	44 10 4	46 11 4	49 11 4	53 13 5	61 17 6	74 23 8	
8500	FUEL DISTANCE TIME	KG NM MIN	33 7 3	35 7 3	37 8 3	39 9 3	41 9 3	43 10 4	45 11 4	49 12 4	56 16 5	68 21 7	
8000	FUEL DISTANCE TIME	KG NM MIN	31 6 3	32 7 3	34 7 3	36 8 3	38 9 3	40 9 3	42 10 3	45 11 4	52 14 5	62 19 6	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 12000 FT
CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

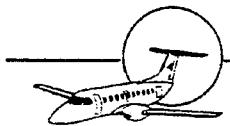
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
 DECREASING TO 135 KIAS AT
 32000 FT

				ISA + °C									
				-50	-40	-30	-20	-10	0	10	20	30	40
	FUEL	KG	59	62	66	70	74	78	83	92	112	146	
	DISTANCE	NM	13	14	15	16	17	18	20	24	32	46	
	TIME	MIN	5	5	6	6	6	7	7	8	11	15	
12000	FUEL	KG	55	58	61	65	69	72	77	85	102	131	
12000	DISTANCE	NM	12	13	14	15	16	17	18	22	29	41	
12000	TIME	MIN	5	5	5	5	6	6	6	7	10	14	
11000	FUEL	KG	51	54	57	61	64	67	71	79	94	118	
11000	DISTANCE	NM	11	12	13	14	15	16	17	20	27	37	
11000	TIME	MIN	4	5	5	5	5	6	6	7	9	12	
10500	FUEL	KG	48	51	53	57	60	63	66	73	86	107	
10500	DISTANCE	NM	10	11	12	13	14	15	16	19	24	34	
10500	TIME	MIN	4	4	5	5	5	6	6	8	11		
10000	FUEL	KG	45	47	50	53	56	58	62	68	79	98	
10000	DISTANCE	NM	10	10	11	12	13	14	15	17	22	31	
10000	TIME	MIN	4	4	4	5	5	5	6	8	10		
9500	FUEL	KG	42	44	46	49	52	54	57	63	73	89	
9500	DISTANCE	NM	9	10	10	11	12	13	14	16	21	28	
9500	TIME	MIN	4	4	4	4	5	5	5	7	9		
9000	FUEL	KG	39	41	43	46	48	50	53	58	67	81	
9000	DISTANCE	NM	8	9	10	10	11	12	13	15	19	25	
9000	TIME	MIN	3	3	4	4	4	4	5	6	8		
8500	FUEL	KG	36	38	40	42	45	47	49	54	62	74	
8500	DISTANCE	NM	8	8	9	10	10	11	12	14	17	23	
8500	TIME	MIN	3	3	3	4	4	4	5	6	8		
8000	FUEL	KG	33	35	37	39	41	43	46	50	57	68	
8000	DISTANCE	NM	7	8	8	9	9	10	11	13	16	21	
8000	TIME	MIN	3	3	3	3	3	4	4	4	5	7	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 13000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

**WEIGHT
KG**

ISA + °C

			-50	-40	-30	-20	-10	0	10	20	30	40
12000	FUEL DISTANCE TIME	KG NM MIN	63 14 5	67 15 6	72 16 6	76 18 6	80 19 7	85 20 7	90 22 8	101 27 9	123 35 12	161 52 17
11500	FUEL DISTANCE TIME	KG NM MIN	59 13 5	63 14 5	67 15 6	71 16 6	75 18 6	79 19 7	84 21 7	93 25 8	112 33 11	144 46 15
11000	FUEL DISTANCE TIME	KG NM MIN	55 12 5	59 13 5	62 14 5	66 15 6	70 16 6	73 18 6	78 19 7	86 23 8	103 30 10	130 42 14
10500	FUEL DISTANCE TIME	KG NM MIN	52 11 4	55 12 5	58 13 5	61 14 5	65 15 5	68 16 6	72 18 6	80 21 7	94 27 9	118 38 12
10000	FUEL DISTANCE TIME	KG NM MIN	48 11 4	51 11 4	54 12 5	57 13 5	60 14 5	63 15 5	67 16 6	74 19 7	87 25 8	107 34 11
9500	FUEL DISTANCE TIME	KG NM MIN	45 10 4	48 11 4	50 11 4	53 12 5	56 13 5	59 14 5	62 15 5	68 18 6	80 23 8	97 31 10
9000	FUEL DISTANCE TIME	KG NM MIN	42 9 4	44 10 4	47 11 4	49 11 4	52 12 4	55 13 5	58 14 5	63 17 6	73 21 7	89 28 9
8500	FUEL DISTANCE TIME	KG NM MIN	39 8 3	41 9 4	44 10 4	46 11 4	48 11 4	51 12 4	54 13 5	59 15 5	67 19 6	81 26 8
8000	FUEL DISTANCE TIME	KG NM MIN	36 8 3	38 8 3	40 9 3	43 10 4	45 10 4	47 11 4	50 12 4	54 14 5	62 18 6	74 24 8


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 14000 FT
CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
 DECREASING TO 135 KIAS AT
 32000 FT

			ISA + °C										
			-50	-40	-30	-20	-10	0	10	20	30	40	
	FUEL	KG	69	73	78	83	87	92	98	111	134	177	
	DISTANCE	NM	15	17	18	20	21	23	25	30	40	59	
	TIME	MIN	6	6	7	7	8	8	8	10	13	19	
12000	FUEL	KG	64	68	72	77	81	86	91	102	123	158	
	DISTANCE	NM	14	16	17	18	20	21	23	27	37	52	
	TIME	MIN	6	6	6	7	7	7	8	9	12	17	
11500	FUEL	KG	60	64	67	71	76	80	85	94	112	142	
	DISTANCE	NM	13	15	16	17	18	20	21	25	33	47	
	TIME	MIN	5	6	6	6	6	7	7	8	11	15	
11000	FUEL	KG	56	59	63	66	70	74	79	87	103	128	
	DISTANCE	NM	12	14	15	16	17	18	20	23	30	42	
	TIME	MIN	5	5	5	6	6	6	7	8	10	14	
10500	FUEL	KG	52	55	59	62	65	69	73	80	94	116	
	DISTANCE	NM	12	13	14	15	16	17	18	22	28	38	
	TIME	MIN	5	5	5	6	6	6	7	9	9	12	
10000	FUEL	KG	49	51	54	58	61	64	68	74	87	106	
	DISTANCE	NM	11	12	13	14	15	16	17	20	26	35	
	TIME	MIN	4	4	5	5	5	6	7	8	8	11	
9500	FUEL	KG	45	48	51	54	56	59	63	69	80	97	
	DISTANCE	NM	10	11	12	13	14	14	16	18	24	32	
	TIME	MIN	4	4	4	5	5	5	6	8	8	10	
9000	FUEL	KG	42	44	47	50	52	55	58	64	73	88	
	DISTANCE	NM	9	10	11	12	12	13	14	17	22	29	
	TIME	MIN	4	4	4	4	4	5	6	7	7	9	
8500	FUEL	KG	39	41	44	46	48	51	54	59	67	80	
	DISTANCE	NM	9	9	10	11	12	12	13	16	20	26	
	TIME	MIN	3	4	4	4	4	5	5	7	7	8	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 15000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

**SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT**

WEIGHT KG			ISA + °C										
			-40	-30	-20	-10	0	10	20	30	35	40	
	FUEL DISTANCE TIME	KG NM MIN	79 18 7	84 20 7	89 22 8	95 23 8	100 25 9	107 27 9	120 33 11	147 45 15	167 45 17	194 54 21	
12000													
11500													
11000													
10500													
10000													
9500													
9000													
8500													
8000													


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 16000 FT

CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

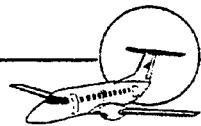
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
 DECREASING TO 135 KIAS AT
 32000 FT

WEIGHT KG			ISA + °C									
			-40	-30	-20	-10	0	10	20	30	35	40
12000	FUEL DISTANCE TIME	KG NM MIN	85 20 8	90 22 8	96 24 8	102 26 9	108 28 9	115 30 10	131 37 12	160 50 16	183 60 19	214 75 23
11500	FUEL DISTANCE TIME	KG NM MIN	79 19 7	84 20 7	89 22 8	95 24 8	100 26 9	107 28 9	120 34 11	145 46 15	164 54 17	189 66 21
11000	FUEL DISTANCE TIME	KG NM MIN	73 17 7	78 19 7	83 20 8	88 22 8	93 24 8	99 26 9	110 31 10	132 41 13	148 49 15	169 58 18
10500	FUEL DISTANCE TIME	KG NM MIN	68 16 6	73 18 6	77 19 7	81 20 8	86 22 8	91 24 8	102 29 9	121 38 12	134 44 14	152 52 17
10000	FUEL DISTANCE TIME	KG NM MIN	64 15 6	67 16 6	72 18 7	76 19 7	80 20 7	85 22 7	94 26 9	110 34 11	122 40 13	137 47 15
9500	FUEL DISTANCE TIME	KG NM MIN	59 14 5	63 15 6	66 16 6	70 18 6	74 19 6	79 20 7	87 24 8	101 31 10	111 36 12	124 43 13
9000	FUEL DISTANCE TIME	KG NM MIN	55 13 5	58 14 5	62 15 5	65 16 6	69 17 6	73 19 6	80 22 7	93 29 9	102 33 11	113 39 12
8500	FUEL DISTANCE TIME	KG NM MIN	51 12 5	54 13 5	57 14 5	60 15 5	64 16 6	67 17 6	74 21 7	85 26 9	93 30 10	103 35 11
8000	FUEL DISTANCE TIME	KG NM MIN	47 11 4	50 12 4	53 13 5	56 14 5	59 15 5	62 16 5	68 19 6	78 24 8	85 28 9	94 32 10

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SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB PLANNING

ALL ENGINES OPERATING

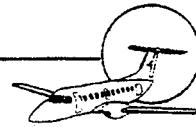
PW118A ENGINES

ALTITUDE: SEA LEVEL TO 17000 FT

CRUISE CONFIGURATION
NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

WEIGHT KG	ISA + °C											
	-40			-30			-20			-10		
FUEL DISTANCE TIME	KG NM MIN	91	97	103	109	116	124	142	175	200	236	
12000		22	24	26	28	30	34	41	57	68	85	
		8	9	9	10	10	11	13	18	21	26	
11500		84	90	95	101	107	115	130	158	179	207	
		20	22	24	26	28	31	38	51	61	74	
		8	8	8	9	9	10	12	16	19	23	
11000		78	83	89	94	99	106	119	143	161	184	
		19	21	22	24	26	28	35	46	54	66	
		7	7	8	8	9	9	11	15	17	20	
10500		73	77	82	87	92	98	110	130	145	165	
		18	19	21	22	24	26	32	42	49	58	
		7	7	7	8	8	9	10	13	15	18	
10000		68	72	76	81	86	91	101	119	132	148	
		16	18	19	21	22	24	29	38	44	52	
		6	6	7	7	8	8	9	12	14	16	
9500		63	67	71	75	79	84	93	109	120	134	
		15	16	18	19	21	22	27	35	40	47	
		6	6	7	7	7	9	11	13	13	15	
9000		59	62	66	70	73	78	86	100	109	122	
		14	15	16	18	19	21	25	32	37	43	
		5	6	6	6	6	7	8	10	12	13	
8500		54	58	61	64	68	72	79	92	100	111	
		13	14	15	16	18	19	23	29	33	39	
		5	5	5	6	6	7	9	11	11	12	
8000		50	53	56	60	63	67	73	84	91	101	
		12	13	14	15	16	18	21	27	30	35	
		5	5	5	5	6	6	7	8	10	11	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 18000 FT

CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

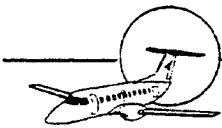
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
 DECREASING TO 135 KIAS AT
 32000 FT

	FUEL	KG	ISA + °C									
			-40	-30	-20	-10	0	10	20	30	35	40
12000	FUEL	96	103	110	117	124	134	153	190	219	261	
	DISTANCE	NM	24	26	28	31	33	37	46	63	77	97
	TIME	MIN	9	9	10	10	11	12	15	20	24	30
11500	FUEL	90	96	102	108	115	123	140	171	195	228	
	DISTANCE	NM	22	24	26	28	31	34	42	57	68	84
	TIME	MIN	8	9	9	10	10	11	13	18	21	26
11000	FUEL	83	89	94	100	106	114	128	155	174	201	
	DISTANCE	NM	21	22	24	26	28	31	38	51	61	74
	TIME	MIN	8	8	8	9	9	10	12	16	19	23
10500	FUEL	78	82	88	93	98	105	118	141	157	179	
	DISTANCE	NM	19	21	22	24	26	29	35	46	54	65
	TIME	MIN	7	7	8	8	9	9	11	15	17	20
10000	FUEL	72	77	81	86	91	97	108	128	142	161	
	DISTANCE	NM	18	19	21	22	24	27	32	42	49	58
	TIME	MIN	7	7	8	8	9	9	10	13	15	18
9500	FUEL	67	71	76	80	85	90	100	117	129	145	
	DISTANCE	NM	16	18	19	21	22	25	30	38	44	52
	TIME	MIN	6	6	7	8	8	9	12	14	16	
9000	FUEL	62	66	70	74	78	83	92	107	118	131	
	DISTANCE	NM	15	16	18	19	21	23	27	35	40	47
	TIME	MIN	6	6	7	7	7	9	11	13	15	
8500	FUEL	58	61	65	69	72	77	85	98	107	119	
	DISTANCE	NM	14	15	16	18	19	21	25	32	37	43
	TIME	MIN	5	5	6	6	6	7	10	11	13	13
8000	FUEL	54	57	60	63	67	71	78	90	98	108	
	DISTANCE	NM	13	14	15	16	18	19	23	29	33	39
	TIME	MIN	5	5	6	6	6	7	9	10	12	

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SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 19000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

WEIGHT KG			ISA + °C										
			-40	-30	-20	-10	0	10	20	30	35	40	
12000	FUEL DISTANCE TIME	KG NM MIN	102 26 9	110 28 10	117 31 11	125 33 11	133 36 12	144 41 13	166 51 16	208 72 22	242 88 27	292 113 34	
11500	FUEL DISTANCE TIME	KG NM MIN	95 24 9	102 26 9	108 28 10	115 31 10	123 33 11	132 37 12	151 46 15	186 64 20	213 77 24	252 96 29	
11000	FUEL DISTANCE TIME	KG NM MIN	88 22 8	94 24 9	100 26 9	107 28 10	113 31 10	122 34 11	138 42 13	167 57 18	190 68 21	220 84 25	
10500	FUEL DISTANCE TIME	KG NM MIN	82 21 7	88 22 8	93 24 8	99 26 9	105 28 9	113 32 10	126 39 12	152 51 16	170 61 19	195 73 22	
10000	FUEL DISTANCE TIME	KG NM MIN	76 19 7	81 21 7	86 22 8	92 24 8	97 26 9	104 29 9	116 35 11	138 47 14	153 55 17	174 65 20	
9500	FUEL DISTANCE TIME	KG NM MIN	71 18 6	75 19 7	80 21 7	85 22 8	90 24 8	96 27 9	107 32 10	126 42 13	139 49 15	156 58 18	
9000	FUEL DISTANCE TIME	KG NM MIN	66 16 6	70 18 6	74 19 7	79 21 7	83 22 7	89 25 8	98 30 9	115 38 12	126 45 14	141 52 16	
8500	FUEL DISTANCE TIME	KG NM MIN	61 15 6	65 16 6	69 18 6	73 19 7	77 21 7	82 23 7	90 27 9	105 35 11	115 40 12	128 47 14	
8000	FUEL DISTANCE TIME	KG NM MIN	57 14 5	60 15 5	64 16 6	67 18 6	71 19 6	76 21 7	83 25 8	96 32 10	105 37 11	116 43 13	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 20000 FT
CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

			ISA + °C									
			-30	-20	-10	-5	0	10	20	30	35	40
	FUEL	KG	116	124	133	137	142	155	179	227	268	333
	DISTANCE	NM	30	33	36	38	39	45	57	81	102	135
	TIME	MIN	11	11	12	12	13	14	18	25	30	40
12000	FUEL	KG	108	115	123	126	131	142	163	202	234	280
12000	DISTANCE	NM	28	31	33	35	36	41	52	71	88	112
12000	TIME	MIN	10	10	11	11	12	13	16	22	26	33
11000	FUEL	KG	100	106	113	117	121	130	148	181	207	242
11000	DISTANCE	NM	26	28	31	32	33	38	47	64	77	95
11000	TIME	MIN	9	10	10	11	11	12	15	19	23	28
10500	FUEL	KG	93	99	105	108	112	120	136	163	184	213
10500	DISTANCE	NM	24	26	28	29	31	35	43	57	68	83
10500	TIME	MIN	8	9	10	10	10	11	13	17	21	25
10000	FUEL	KG	86	92	97	100	103	111	124	148	166	189
10000	DISTANCE	NM	22	24	26	27	28	32	39	51	61	73
10000	TIME	MIN	8	8	9	9	9	10	12	16	18	22
9500	FUEL	KG	80	85	90	93	95	102	114	135	150	169
9500	DISTANCE	NM	21	22	24	25	26	29	36	47	55	65
9500	TIME	MIN	7	8	8	8	9	9	11	14	17	20
9000	FUEL	KG	74	79	83	86	88	94	105	123	135	152
9000	DISTANCE	NM	19	21	22	23	24	27	33	42	49	58
9000	TIME	MIN	7	7	8	8	8	9	10	13	15	18
8500	FUEL	KG	69	73	77	79	82	87	96	112	123	137
8500	DISTANCE	NM	18	19	21	21	22	25	30	39	45	52
8500	TIME	MIN	6	7	7	7	7	8	9	12	14	16
8000	FUEL	KG	63	67	71	73	75	80	88	102	112	124
8000	DISTANCE	NM	16	18	19	20	21	23	27	35	40	47
8000	TIME	MIN	6	6	6	7	7	7	9	11	12	14

20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 21000 FT

CRUISE CONFIGURATION

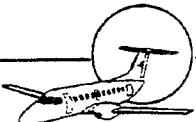
NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

WEIGHT KG	ISA + °C											
			-30	-20	-10	-5	0	10	20	30	35	40
FUEL KG	123	132	141	146	151	166	194	250	301	388		
DISTANCE NM	33	36	39	41	43	50	64	92	119	165		
TIME MIN	11	12	13	13	14	16	20	28	35	48		
FUEL KG	114	122	130	134	139	152	175	220	258	316		
DISTANCE NM	30	33	36	37	39	45	57	81	100	132		
TIME MIN	10	11	12	12	13	14	18	24	30	38		
FUEL KG	106	113	120	124	128	139	159	196	226	269		
DISTANCE NM	28	30	33	35	36	41	52	71	87	110		
TIME MIN	10	10	11	11	12	13	16	21	26	32		
FUEL KG	98	104	111	115	118	128	145	176	200	233		
DISTANCE NM	26	28	30	32	33	38	47	64	76	94		
TIME MIN	9	10	10	10	11	12	15	19	23	28		
FUEL KG	91	97	103	106	109	118	133	159	179	205		
DISTANCE NM	24	26	28	29	31	35	43	57	68	82		
TIME MIN	8	9	9	10	10	11	13	17	20	24		
FUEL KG	84	90	95	98	101	109	122	144	161	183		
DISTANCE NM	22	24	26	27	28	32	39	51	61	73		
TIME MIN	8	8	9	9	9	10	12	16	18	22		
FUEL KG	78	83	88	91	93	100	112	131	145	163		
DISTANCE NM	20	22	24	25	26	29	36	47	54	65		
TIME MIN	7	8	8	8	9	9	11	14	16	19		
FUEL KG	72	77	81	84	86	92	102	120	132	147		
DISTANCE NM	19	20	22	23	24	27	33	42	49	58		
TIME MIN	7	7	7	8	8	9	10	13	15	17		
FUEL KG	67	71	75	77	80	85	94	109	119	133		
DISTANCE NM	17	19	20	21	22	25	30	38	44	52		
TIME MIN	6	6	7	7	7	8	9	12	13	16		


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 22000 FT
CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
 DECREASING TO 135 KIAS AT
 32000 FT

			ISA + °C									
			-30	-20	-10	-5	0	10	20	30	35	40
	FUEL	KG	130	139	149	155	161	178	210	276	341	472
	DISTANCE	NM	35	38	42	44	47	55	72	106	141	214
	TIME	MIN	12	13	14	14	15	17	22	31	41	61
12000	FUEL	KG	120	129	138	143	148	162	189	241	287	363
11500	DISTANCE	NM	32	35	39	41	43	50	64	91	116	158
11500	TIME	MIN	11	12	13	13	14	16	19	27	34	45
11000	FUEL	KG	111	119	127	131	136	149	171	213	247	300
11000	DISTANCE	NM	30	33	36	37	39	45	57	80	99	128
11000	TIME	MIN	10	11	12	12	13	14	18	24	29	37
10500	FUEL	KG	103	110	117	121	126	136	155	190	217	256
10500	DISTANCE	NM	28	30	33	34	36	42	52	71	86	108
10500	TIME	MIN	10	10	11	11	12	13	16	21	25	31
10000	FUEL	KG	96	102	109	112	116	125	142	171	193	223
10000	DISTANCE	NM	26	28	30	32	33	38	47	63	76	93
10000	TIME	MIN	9	9	10	10	11	12	14	19	22	27
9500	FUEL	KG	89	94	100	104	107	115	130	154	173	197
9500	DISTANCE	NM	24	26	28	29	31	35	43	57	67	81
9500	TIME	MIN	8	9	9	10	10	11	13	17	20	24
9000	FUEL	KG	82	87	93	96	99	106	119	140	156	176
9000	DISTANCE	NM	22	24	26	27	28	32	39	51	60	72
9000	TIME	MIN	8	8	9	9	10	12	15	18	21	21
8500	FUEL	KG	76	81	86	88	91	98	109	127	140	158
8500	DISTANCE	NM	20	22	24	25	26	29	36	46	54	64
8500	TIME	MIN	7	7	8	8	9	11	14	16	19	19
8000	FUEL	KG	70	75	79	81	84	90	100	116	127	142
8000	DISTANCE	NM	19	20	22	23	24	27	33	42	49	57
8000	TIME	MIN	6	7	7	8	9	10	13	15	17	17

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 23000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

WEIGHT KG	ISA + °C											
	-30			-20			-10			-5		
FUEL KG	DISTANCE NM	TIME MIN	FUEL KG	DISTANCE NM	TIME MIN	FUEL KG	DISTANCE NM	TIME MIN	FUEL KG	DISTANCE NM	TIME MIN	FUEL KG
12000			137	147	158	165	172	191	229	309	396	649
			37	41	45	48	51	51	81	123	172	320
			13	14	15	15	16	19	24	36	49	88
11500			127	136	146	151	157	174	204	264	321	429
			35	38	42	44	47	55	71	104	136	198
			12	13	14	14	15	17	21	30	39	56
11000			117	126	134	139	144	159	184	231	272	339
			32	35	38	40	43	50	64	90	113	151
			11	12	12	13	14	15	19	26	33	43
10500			109	116	124	128	133	145	166	205	237	283
			29	32	35	37	39	45	57	79	97	124
			10	11	12	12	13	14	17	23	28	36
10000			101	107	114	118	122	133	151	183	209	244
			27	30	32	34	36	41	52	70	84	105
			9	10	11	11	12	13	16	21	25	30
9500			93	99	106	109	113	122	138	165	186	214
			25	27	30	31	33	38	47	62	74	91
			9	9	10	10	11	12	14	19	22	26
9000			86	92	98	101	104	112	126	149	166	189
			23	25	28	29	30	35	43	56	66	80
			8	8	9	9	10	11	13	17	19	23
8500			80	85	90	93	96	103	115	135	150	169
			21	23	25	27	28	32	39	51	59	71
			7	8	8	9	9	10	12	15	17	21
8000			74	78	83	86	88	95	105	123	135	151
			20	21	23	24	26	29	35	46	53	63
			7	7	8	8	8	9	11	14	16	18


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 24000 FT
CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

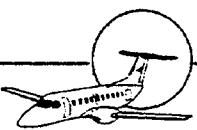
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

**WEIGHT
KG**
ISA + °C

			-30	-20	-10	-5	0	10	20	30	35	40
12000	FUEL	KG	145	156	168	175	183	206	250	351	486	-
	DISTANCE	NM	40	44	49	52	56	68	91	147	225	-
	TIME	MIN	14	15	16	17	18	21	27	42	63	-
11500	FUEL	KG	133	143	154	160	167	186	221	293	367	548
	DISTANCE	NM	37	40	45	48	51	61	80	120	163	272
	TIME	MIN	12	13	14	15	16	19	24	35	46	75
11000	FUEL	KG	123	132	142	147	153	169	198	253	303	392
	DISTANCE	NM	34	37	41	44	46	55	71	102	131	184
	TIME	MIN	12	12	13	14	15	17	21	30	37	52
10500	FUEL	KG	114	122	131	135	141	154	178	222	259	316
	DISTANCE	NM	31	34	38	40	43	50	63	88	110	144
	TIME	MIN	11	11	12	13	13	15	19	26	32	41
10000	FUEL	KG	106	113	121	125	129	141	161	197	226	267
	DISTANCE	NM	29	32	35	37	39	45	57	78	94	120
	TIME	MIN	10	11	11	12	12	14	17	23	27	34
9500	FUEL	KG	98	104	111	115	119	129	147	177	200	232
	DISTANCE	NM	27	29	32	34	36	41	51	69	83	102
	TIME	MIN	9	10	10	11	11	13	15	20	24	29
9000	FUEL	KG	91	96	103	106	110	119	134	159	178	203
	DISTANCE	NM	25	27	29	31	33	38	47	62	73	89
	TIME	MIN	8	9	10	10	10	12	14	18	21	26
8500	FUEL	KG	84	89	95	98	101	109	122	144	160	181
	DISTANCE	NM	23	25	27	29	30	35	42	55	65	78
	TIME	MIN	8	8	9	9	10	11	13	16	19	22
8000	FUEL	KG	77	82	87	90	93	100	111	130	144	161
	DISTANCE	NM	21	23	25	26	28	32	38	50	58	69
	TIME	MIN	7	8	8	8	9	10	12	15	17	20

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 25000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

WEIGHT KG	ISA + °C											
	-20			-10			-5			0		
FUEL	KG	164	178	186	196	207	223	275	414	723	-	-
DISTANCE	NM	47	53	57	62	68	76	105	184	370	-	-
TIME	MIN	16	17	18	19	21	23	31	52	100	-	-
12000												
11500												
11000												
10500												
10000												
9500												
9000												
8500												
8000												


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 26000 FT

CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
 DECREASING TO 135 KIAS AT
 32000 FT

WEIGHT KG			ISA + °C									
			-20	-10	-5	0	5	10	20	30	35	40
12000	FUEL	KG	174	189	199	209	223	242	307	543	-	-
	DISTANCE	NM	51	58	62	68	75	85	122	262	-	-
	TIME	MIN	17	18	19	21	23	25	35	72	-	-
11500	FUEL	KG	159	173	180	190	201	215	263	382	585	-
	DISTANCE	NM	47	53	56	61	67	75	103	173	300	-
	TIME	MIN	15	17	18	19	20	22	30	48	81	-
11000	FUEL	KG	146	158	165	172	182	193	230	310	397	685
	DISTANCE	NM	43	48	51	55	60	67	88	136	190	379
	TIME	MIN	14	15	16	17	18	20	26	38	53	101
10500	FUEL	KG	135	145	151	157	165	175	205	263	317	423
	DISTANCE	NM	39	44	47	50	54	60	78	113	147	215
	TIME	MIN	13	14	15	16	17	18	23	32	41	59
10000	FUEL	KG	124	133	139	144	151	159	184	229	268	331
	DISTANCE	NM	36	40	43	46	49	54	69	97	121	161
	TIME	MIN	12	13	13	14	15	16	20	28	34	45
9500	FUEL	KG	115	123	127	132	138	145	166	203	232	276
	DISTANCE	NM	33	37	39	42	45	49	62	84	103	131
	TIME	MIN	11	12	12	13	14	15	18	24	29	37
9000	FUEL	KG	106	113	117	121	126	132	150	181	204	237
	DISTANCE	NM	30	34	36	38	41	44	55	74	89	111
	TIME	MIN	10	11	11	12	13	13	16	22	25	31
8500	FUEL	KG	98	104	108	112	116	121	136	162	181	207
	DISTANCE	NM	28	31	33	35	37	40	50	66	79	96
	TIME	MIN	9	10	10	11	12	12	15	19	22	27
8000	FUEL	KG	90	96	99	102	106	111	124	146	162	183
	DISTANCE	NM	26	28	30	32	34	37	45	59	70	84
	TIME	MIN	8	9	10	10	11	11	13	17	20	24

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SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 27000 FT

CRUISE CONFIGURATION

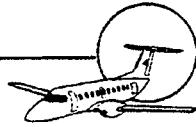
NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

WEIGHT KG	ISA + °C											
	-20	-10	-5	0	5	10	20	30	35	40		
12000	FUEL KG	184	202	212	225	242	265	352	-	-	-	-
	DISTANCE NM	55	63	69	75	84	97	148	-	-	-	-
	TIME MIN	18	20	21	23	25	29	42	-	-	-	-
11500	FUEL KG	168	183	192	202	215	232	292	476	-	-	-
	DISTANCE NM	50	57	62	67	74	84	119	232	-	-	-
	TIME MIN	16	18	19	20	22	25	34	64	-	-	-
11000	FUEL KG	154	167	175	183	194	207	251	353	500	-	-
	DISTANCE NM	46	52	56	60	66	74	100	163	258	-	-
	TIME MIN	15	16	17	18	20	22	29	45	70	-	-
10500	FUEL KG	142	153	159	167	175	186	221	291	363	545	
	DISTANCE NM	42	47	50	54	59	66	87	130	176	300	
	TIME MIN	14	15	16	17	18	20	25	37	49	80	
10000	FUEL KG	130	140	146	152	160	169	196	249	296	380	
	DISTANCE NM	38	43	46	49	54	59	76	109	139	195	
	TIME MIN	12	14	14	15	16	18	22	31	39	53	
9500	FUEL KG	120	129	134	139	146	153	176	218	252	305	
	DISTANCE NM	35	39	42	45	49	53	68	94	116	152	
	TIME MIN	11	13	13	14	15	16	20	27	33	42	
9000	FUEL KG	111	119	123	128	133	140	159	193	219	258	
	DISTANCE NM	32	36	38	41	44	48	60	82	99	125	
	TIME MIN	11	11	12	13	13	15	18	23	28	35	
8500	FUEL KG	102	109	113	117	122	128	144	172	193	223	
	DISTANCE NM	30	33	35	37	40	44	54	73	87	106	
	TIME MIN	10	11	11	12	12	13	16	21	25	30	
8000	FUEL KG	94	100	104	107	112	116	131	155	172	196	
	DISTANCE NM	27	30	32	34	37	40	49	65	76	92	
	TIME MIN	9	10	10	11	11	12	14	19	22	26	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 28000 FT
CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

	WEIGHT KG	ISA + °C											
		-20	-10	-5	0	5	10	20	30	35	40		
12000	FUEL KG	195	215	228	243	264	294	429	-	-	-		
	DISTANCE NM	60	69	76	84	96	113	193	-	-	-		
	TIME MIN	19	22	23	25	28	33	54	-	-	-		
11500	FUEL KG	177	194	204	217	232	253	330	-	-	-		
	DISTANCE NM	54	62	68	74	83	95	141	-	-	-		
	TIME MIN	17	19	21	22	25	28	40	-	-	-		
11000	FUEL KG	162	177	185	195	207	223	276	425	-	-		
	DISTANCE NM	49	56	61	66	73	82	115	210	-	-		
	TIME MIN	16	18	19	20	22	24	33	57	-	-		
10500	FUEL KG	149	161	168	177	186	199	239	327	438	-		
	DISTANCE NM	45	51	55	59	65	73	97	154	228	-		
	TIME MIN	14	16	17	18	20	21	28	43	62	-		
10000	FUEL KG	137	148	154	161	169	179	211	273	333	461		
	DISTANCE NM	41	46	50	54	58	65	85	125	165	254		
	TIME MIN	13	15	15	16	18	19	24	35	45	68		
9500	FUEL KG	126	135	141	147	154	162	188	235	276	344		
	DISTANCE NM	38	42	45	49	53	58	74	105	133	180		
	TIME MIN	12	13	14	15	16	17	22	30	37	49		
9000	FUEL KG	116	124	129	134	140	147	169	206	237	282		
	DISTANCE NM	35	39	41	44	48	52	66	91	111	143		
	TIME MIN	11	12	13	14	14	16	19	26	31	39		
8500	FUEL KG	107	114	118	123	128	134	152	183	207	240		
	DISTANCE NM	32	35	38	40	43	47	59	80	96	119		
	TIME MIN	10	11	12	12	13	14	17	23	27	33		
8000	FUEL KG	98	105	108	112	117	122	138	164	183	209		
	DISTANCE NM	29	32	34	37	39	43	53	71	84	102		
	TIME MIN	9	10	11	11	12	13	16	20	24	28		

20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

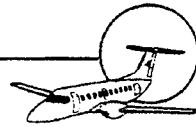
ALTITUDE: SEA LEVEL TO 29000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

WEIGHT KG	ISA + °C											
	-20			-10			-5			0		
FUEL KG	DISTANCE NM	TIME MIN	FUEL KG	DISTANCE NM	TIME MIN	FUEL KG	DISTANCE NM	TIME MIN	FUEL KG	DISTANCE NM	TIME MIN	FUEL KG
12000			207	231	246	265	292	334	-	-	-	-
	65	77	85	96	111	136			-	-	-	-
		20	24	26	28	32	39		-	-	-	-
11500			188	207	219	233	252	279	392	-	-	-
	58	68	75	83	94	110	136	180		-	-	-
		18	21	23	25	28	32	50		-	-	-
11000			171	187	197	208	222	242	309	631	-	-
	53	61	66	73	81	93	135	135	350	-	-	-
		17	19	20	22	24	27	38	93	-	-	-
10500			156	170	178	187	199	213	261	383	-	-
	48	55	60	65	72	81	93	111	192	-	-	-
		15	17	18	20	21	24	31	52	-	-	-
10000			143	155	162	170	179	191	227	303	390	704
	44	50	54	58	64	71	71	95	145	206	437	
		14	16	16	18	19	21	27	40	56	114	
9500			132	142	148	154	162	172	201	256	307	402
	40	46	49	53	57	63	63	82	119	155	223	
		13	14	15	16	17	19	24	33	42	60	
9000			121	130	135	141	147	156	179	222	257	313
	37	42	44	48	52	57	57	73	101	126	166	
		12	13	14	15	16	17	21	28	35	45	
8500			111	119	124	129	134	141	161	195	222	261
	34	38	40	43	47	51	51	65	88	107	135	
		11	12	12	13	14	15	19	25	30	37	
8000			102	109	113	118	123	128	145	173	195	224
	31	35	37	39	42	46	46	58	77	92	113	
		10	11	11	12	13	14	17	22	26	31	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 30000 FT

CRUISE CONFIGURATION

NP: 100% OR

100% UP TO 12000 FT AND
90% ABOVE 12000 FT

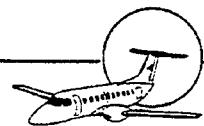
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
 DECREASING TO 135 KIAS AT
 32000 FT

WEIGHT KG			ISA + °C									
			-10	-5	0	5	10	15	20	25	30	35
12000	FUEL DISTANCE TIME	KG NM MIN	249 86 26	268 96 29	294 111 33	332 134 38	406 178 50	- - -	- - -	- - -	- - -	- - -
11500	FUEL DISTANCE TIME	KG NM MIN	221 75 23	235 83 25	253 93 28	278 108 31	314 131 37	380 172 48	566 291 79	- - -	- - -	- - -
11000	FUEL DISTANCE TIME	KG NM MIN	199 67 20	210 73 22	223 81 24	241 91 27	265 106 31	300 129 36	360 168 47	516 273 73	- - -	- - -
10500	FUEL DISTANCE TIME	KG NM MIN	180 60 18	189 65 20	200 71 21	213 80 23	230 91 26	254 106 30	290 130 36	350 170 47	504 278 74	- - -
10000	FUEL DISTANCE TIME	KG NM MIN	163 54 17	171 58 18	180 64 19	190 70 21	204 79 23	222 91 26	247 107 30	284 132 37	347 177 48	517 300 79
9500	FUEL DISTANCE TIME	KG NM MIN	149 49 15	156 53 16	163 57 17	172 63 19	182 70 20	197 79 23	215 92 26	242 110 31	282 138 38	351 188 51
9000	FUEL DISTANCE TIME	KG NM MIN	136 45 14	142 48 15	148 52 16	155 56 17	164 62 18	176 70 20	191 80 23	211 94 26	240 114 32	283 145 40
8500	FUEL DISTANCE TIME	KG NM MIN	125 41 13	130 43 13	135 47 14	141 51 15	149 55 16	158 62 18	170 71 20	187 82 23	209 98 27	240 120 33
8000	FUEL DISTANCE TIME	KG NM MIN	114 37 12	118 39 12	123 42 13	128 46 14	135 50 15	143 56 16	153 63 18	166 72 20	184 85 24	208 102 28

20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 31000 FT

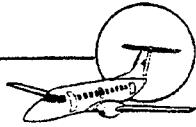
CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
DECREASING TO 135 KIAS AT
32000 FT

WEIGHT KG	ISA + °C											
				-10	-5	0	5	10	15	20	25	30
12000	FUEL DISTANCE TIME	KG NM MIN	272 97 29	298 112 33	336 135 39	407 177 50	- - -	- - -	- - -	- - -	- - -	- - -
11500	FUEL DISTANCE TIME	KG NM MIN	238 84 25	256 94 28	279 108 31	313 129 37	372 166 46	552 282 76	- - -	- - -	- - -	- - -
11000	FUEL DISTANCE TIME	KG NM MIN	212 74 22	225 81 24	241 91 27	263 105 30	295 125 35	349 161 45	477 246 67	- - -	- - -	- - -
10500	FUEL DISTANCE TIME	KG NM MIN	190 65 20	201 71 21	213 79 23	229 89 26	251 103 29	282 124 35	332 158 43	439 233 63	- - -	- - -
10000	FUEL DISTANCE TIME	KG NM MIN	172 59 18	181 64 19	191 70 21	203 78 23	219 88 25	241 103 29	271 124 35	321 159 43	428 236 63	- - -
9500	FUEL DISTANCE TIME	KG NM MIN	157 53 16	164 57 17	172 62 19	182 69 20	194 77 22	210 88 25	233 103 29	265 126 35	317 164 44	432 250 66
9000	FUEL DISTANCE TIME	KG NM MIN	143 48 15	149 51 16	156 56 17	164 61 18	174 68 20	187 77 22	204 89 25	227 105 29	261 130 36	318 173 46
8500	FUEL DISTANCE TIME	KG NM MIN	130 43 13	136 47 14	142 50 15	148 55 16	157 61 18	167 68 20	181 78 22	199 91 25	224 109 30	261 137 37
8000	FUEL DISTANCE TIME	KG NM MIN	119 39 12	124 42 13	129 45 14	135 49 15	142 54 16	150 60 17	162 68 19	176 79 22	196 94 26	223 114 31


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 32000 FT
CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 155 KIAS FROM SL TO 20000 FT,
 DECREASING TO 135 KIAS AT
 32000 FT

WEIGHT KG	ISA + °C										
	-10	-5	0	5	10	15	20	25	30	35	
12000	FUEL KG	303	343	421	-	-	-	-	-	-	
	DISTANCE NM	114	137	184	-	-	-	-	-	-	
	TIME MIN	34	40	52	-	-	-	-	-	-	
11500	FUEL KG	259	282	315	374	-	-	-	-	-	
	DISTANCE NM	95	109	129	166	-	-	-	-	-	
	TIME MIN	28	32	37	47	-	-	-	-	-	
11000	FUEL KG	227	243	264	294	343	463	-	-	-	
	DISTANCE NM	82	91	104	123	155	236	-	-	-	
	TIME MIN	25	27	30	35	43	64	-	-	-	
10500	FUEL KG	202	214	230	249	277	322	414	-	-	
	DISTANCE NM	72	79	89	101	120	151	215	-	-	
	TIME MIN	22	23	26	29	34	42	58	-	-	
10000	FUEL KG	182	192	203	218	237	264	306	385	-	
	DISTANCE NM	64	70	77	87	100	119	148	205	-	
	TIME MIN	19	21	23	25	28	33	41	55	-	
9500	FUEL KG	165	173	182	193	208	227	254	295	374	
	DISTANCE NM	57	62	68	76	85	99	118	148	208	
	TIME MIN	17	19	20	22	24	28	33	40	55	
9000	FUEL KG	150	156	164	173	184	199	219	247	290	
	DISTANCE NM	52	56	61	67	75	85	99	120	152	
	TIME MIN	16	17	18	19	21	24	28	33	41	
8500	FUEL KG	136	142	149	156	165	177	192	213	243	
	DISTANCE NM	47	50	54	60	66	75	86	101	123	
	TIME MIN	14	15	16	17	19	21	24	28	34	
8000	FUEL KG	124	129	135	141	149	158	171	187	209	
	DISTANCE NM	42	45	49	53	59	66	75	87	104	
	TIME MIN	13	14	15	16	17	19	21	24	29	
										242	
										129	
										35	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 5000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

WEIGHT KG			ISA + °C										
			-60	-40	-30	-20	-10	0	10	20	30	40	
12000	FUEL DISTANCE TIME	KG NM MIN	24 5 2	27 6 2	29 6 2	30 7 2	32 7 3	34 8 3	36 8 3	38 9 3	46 12 4	60 18 6	
11500	FUEL DISTANCE TIME	KG NM MIN	22 5 2	25 6 2	27 6 2	28 6 2	30 7 2	32 7 3	33 8 3	35 9 3	42 11 4	55 16 5	
11000	FUEL DISTANCE TIME	KG NM MIN	21 4 2	24 5 2	25 6 2	27 6 2	28 6 2	30 7 2	31 7 2	33 8 3	39 10 3	50 15 5	
10500	FUEL DISTANCE TIME	KG NM MIN	20 4 2	22 5 2	24 5 2	25 6 2	26 6 2	28 6 2	29 7 2	31 7 2	36 10 3	46 13 4	
10000	FUEL DISTANCE TIME	KG NM MIN	19 4 2	21 5 2	22 5 2	23 5 2	25 6 2	26 6 2	27 6 2	29 7 2	34 9 3	43 12 4	
9500	FUEL DISTANCE TIME	KG NM MIN	17 4 1	19 4 2	21 5 2	22 5 2	23 5 2	24 6 2	25 6 2	27 6 2	31 8 3	39 11 4	
9000	FUEL DISTANCE TIME	KG NM MIN	16 3 1	18 4 1	19 4 2	20 5 2	21 5 2	22 5 2	24 6 2	25 6 2	29 8 3	36 10 3	
8500	FUEL DISTANCE TIME	KG NM MIN	15 3 1	17 4 1	18 4 1	19 4 2	20 5 2	21 5 2	22 5 2	23 6 2	27 7 2	33 10 3	
8000	FUEL DISTANCE TIME	KG NM MIN	14 3 1	16 3 1	17 4 1	18 4 1	18 4 1	19 4 1	20 5 2	22 5 2	25 7 2	31 9 3	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 6000 FT

CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

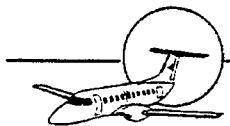
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

WEIGHT KG			ISA + °C									
			-60	-40	-30	-20	-10	0	10	20	30	40
	FUEL DISTANCE TIME	KG NM MIN	29 6 2	32 7 3	34 8 3	36 8 3	38 9 3	41 10 3	43 10 3	46 11 4	55 15 5	73 22 7
12000			27 6 2	30 7 3	32 7 3	34 8 3	36 8 3	38 9 3	40 10 3	43 10 3	51 14 4	66 20 6
11500			25 5 2	28 6 2	30 7 2	32 7 3	34 8 3	35 8 3	37 9 3	40 10 3	47 13 4	61 18 6
11000			24 5 2	27 6 2	28 6 2	30 7 2	31 7 3	33 8 3	35 8 3	37 9 3	44 12 4	56 17 5
10500			22 5 2	25 5 2	26 6 2	28 6 2	29 7 2	31 7 3	32 8 3	35 8 3	41 11 4	51 15 5
10000			21 4 2	23 5 2	25 6 2	26 6 2	27 6 2	29 7 2	30 7 2	32 8 3	38 10 3	47 14 4
9500			19 4 2	22 5 2	23 5 2	24 6 2	26 6 2	27 7 2	28 7 2	30 7 2	35 9 3	43 13 4
9000			18 4 2	20 4 2	21 5 2	23 5 2	24 5 2	25 6 2	26 6 2	28 7 2	32 9 3	40 12 4
8500			17 4 1	19 4 2	20 4 2	21 5 2	22 5 2	23 5 2	24 6 2	26 7 2	30 8 2	37 11 3
8000												

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 7000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

			ISA + °C										
			-60	-40	-30	-20	-10	0	10	20	30	40	
	FUEL	KG	33	38	40	42	45	47	50	54	65	86	
	DISTANCE	NM	7	8	9	10	11	11	12	13	18	26	
	TIME	MIN	3	3	3	3	4	4	4	4	6	8	
12000	FUEL	KG	31	35	37	40	42	44	46	50	60	78	
12000	DISTANCE	NM	7	8	9	9	10	10	11	12	16	24	
12000	TIME	MIN	3	3	3	3	3	4	4	4	5	8	
11500	FUEL	KG	29	33	35	37	39	41	43	46	55	71	
11500	DISTANCE	NM	6	7	8	9	9	10	10	12	15	22	
11500	TIME	MIN	2	3	3	3	3	3	4	4	5	7	
11000	FUEL	KG	27	31	33	35	36	38	40	43	51	65	
11000	DISTANCE	NM	6	7	7	8	9	9	10	11	14	20	
11000	TIME	MIN	2	3	3	3	3	3	3	4	5	6	
10500	FUEL	KG	26	29	31	32	34	36	38	40	47	60	
10500	DISTANCE	NM	6	6	7	7	8	9	9	10	13	18	
10500	TIME	MIN	2	2	3	3	3	3	3	3	4	6	
10000	FUEL	KG	24	27	29	30	32	33	35	38	44	55	
10000	DISTANCE	NM	5	6	6	7	7	8	9	9	12	17	
10000	TIME	MIN	2	2	2	2	3	3	3	3	4	5	
9500	FUEL	KG	22	25	27	28	30	31	33	35	41	51	
9500	DISTANCE	NM	5	6	6	6	7	8	9	9	11	15	
9500	TIME	MIN	2	2	2	2	2	3	3	3	4	5	
9000	FUEL	KG	21	23	25	26	28	29	30	32	38	47	
9000	DISTANCE	NM	4	5	6	6	6	7	7	8	10	14	
9000	TIME	MIN	2	2	2	2	2	2	2	3	3	4	
8500	FUEL	KG	19	22	23	24	26	27	28	30	35	43	
8500	DISTANCE	NM	4	5	5	6	6	6	7	7	9	13	
8500	TIME	MIN	2	2	2	2	2	2	2	2	3	4	
8000	FUEL	KG	19	22	23	24	26	27	28	30	35	43	
8000	DISTANCE	NM	4	5	5	6	6	6	7	7	9	13	
8000	TIME	MIN	2	2	2	2	2	2	2	2	3	4	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 8000 FT

CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

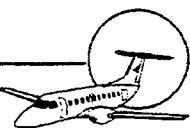
PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

**WEIGHT
KG**
ISA + °C

			-60	-40	-30	-20	-10	0	10	20	30	40
12000	FUEL DISTANCE TIME	KG NM MIN	38 8 3	43 10 4	45 10 4	48 11 4	51 12 4	54 13 4	57 14 5	62 16 5	75 21 7	99 31 10
11500	FUEL DISTANCE TIME	KG NM MIN	36 8 3	40 9 3	43 10 4	45 11 4	48 11 4	50 12 4	53 13 4	57 14 5	69 19 6	90 28 9
11000	FUEL DISTANCE TIME	KG NM MIN	33 7 3	38 8 3	40 9 3	42 10 3	44 11 4	47 11 4	49 12 4	53 13 4	64 18 6	82 25 8
10500	FUEL DISTANCE TIME	KG NM MIN	31 7 3	35 8 3	37 9 3	39 9 3	42 10 3	44 11 4	46 11 4	50 13 4	59 16 5	75 23 7
10000	FUEL DISTANCE TIME	KG NM MIN	29 6 2	33 7 3	35 8 3	37 9 3	39 9 3	41 10 3	43 10 4	46 12 4	54 15 5	69 21 7
9500	FUEL DISTANCE TIME	KG NM MIN	27 6 2	31 7 3	32 7 3	34 8 3	36 9 3	38 9 3	40 10 3	43 11 4	50 14 5	63 19 6
9000	FUEL DISTANCE TIME	KG NM MIN	26 6 2	29 6 2	30 7 3	32 7 3	34 8 3	35 8 3	37 9 3	40 10 3	47 13 4	58 18 6
8500	FUEL DISTANCE TIME	KG NM MIN	24 5 2	27 6 2	28 6 2	30 7 2	31 7 3	33 8 3	35 8 3	37 9 3	43 12 4	53 16 5
8000	FUEL DISTANCE TIME	KG NM MIN	22 5 2	25 6 2	26 6 2	28 6 2	29 7 2	31 7 3	32 8 3	34 9 3	40 11 4	49 15 5

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 9000 FT

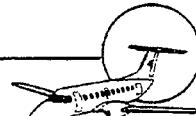
CRUISE CONFIGURATION

NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO
 PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

WEIGHT KG	ISA + °C											
	-60	-40	-30	-20	-10	0	10	20	30	40		
12000	FUEL KG	42	48	51	54	57	60	64	70	85	113	
	DISTANCE NM	9	11	12	13	14	15	16	18	24	35	
	TIME MIN	4	4	4	4	5	5	5	6	8	11	
11500	FUEL KG	40	45	48	50	53	56	59	65	78	102	
	DISTANCE NM	9	10	11	12	13	14	15	17	22	32	
	TIME MIN	3	4	4	4	4	5	5	5	7	10	
11000	FUEL KG	37	42	45	47	50	53	55	60	72	93	
	DISTANCE NM	8	10	10	11	12	13	14	16	20	29	
	TIME MIN	3	4	4	4	4	5	5	7		9	
10500	FUEL KG	35	39	42	44	47	49	52	56	67	85	
	DISTANCE NM	8	9	10	10	11	12	13	14	19	27	
	TIME MIN	3	3	3	4	4	4	5	6		8	
10000	FUEL KG	33	37	39	41	43	46	48	52	62	78	
	DISTANCE NM	7	8	9	10	10	11	12	13	17	24	
	TIME MIN	3	3	3	4	4	4	4	6		8	
9500	FUEL KG	31	34	36	38	41	43	45	49	57	71	
	DISTANCE NM	7	8	9	10	10	11	12	13	16	22	
	TIME MIN	3	3	3	3	4	4	4	5		7	
9000	FUEL KG	29	32	34	36	38	40	42	45	53	65	
	DISTANCE NM	6	7	8	9	10	10	12	15	20	26	
	TIME MIN	2	3	3	3	3	3	4	5		6	
8500	FUEL KG	27	30	32	33	35	37	39	42	49	60	
	DISTANCE NM	6	7	7	8	8	9	10	11	14	19	
	TIME MIN	2	3	3	3	3	3	4	4		6	
8000	FUEL KG	25	28	29	31	33	34	36	39	45	55	
	DISTANCE NM	5	6	7	7	8	8	9	10	13	17	
	TIME MIN	2	2	2	3	3	3	3	4		5	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 10000 FT

CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

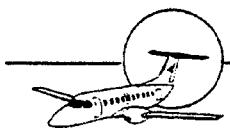
PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

**WEIGHT
KG**
ISA + °C

			-50	-40	-30	-20	-10	0	10	20	30	40
12000	FUEL DISTANCE TIME	KG NM MIN	50 11 4	53 12 4	56 13 5	60 14 5	63 15 5	67 16 6	71 18 6	78 20 7	95 27 9	127 41 13
11500	FUEL DISTANCE TIME	KG NM MIN	47 11 4	50 12 4	53 12 4	56 13 5	59 14 5	62 15 5	66 16 5	72 19 6	87 25 8	115 37 11
11000	FUEL DISTANCE TIME	KG NM MIN	44 10 4	47 11 4	49 12 4	52 12 4	55 13 5	58 14 5	61 15 5	67 18 6	81 23 7	104 33 10
10500	FUEL DISTANCE TIME	KG NM MIN	41 9 3	44 10 4	46 11 4	49 12 4	52 12 4	54 13 5	57 14 5	63 16 5	74 21 7	95 30 10
10000	FUEL DISTANCE TIME	KG NM MIN	38 9 3	41 9 3	43 10 4	46 11 4	48 12 4	51 12 4	53 13 4	58 15 4	69 20 5	87 28 6
9500	FUEL DISTANCE TIME	KG NM MIN	36 8 3	38 9 3	40 9 3	43 10 4	45 11 4	47 12 4	50 12 4	54 14 5	64 18 6	80 25 8
9000	FUEL DISTANCE TIME	KG NM MIN	34 8 3	35 8 3	38 9 3	40 9 3	42 10 3	44 11 4	46 11 4	50 13 4	59 17 5	73 23 7
8500	FUEL DISTANCE TIME	KG NM MIN	31 7 3	33 8 3	35 8 3	37 9 3	39 9 3	41 10 3	43 11 4	47 12 4	54 16 5	67 21 7
8000	FUEL DISTANCE TIME	KG NM MIN	29 6 2	31 7 3	32 8 3	34 8 3	36 9 3	38 9 3	40 10 3	43 11 4	50 14 5	61 20 6

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 11000 FT

CRUISE CONFIGURATION

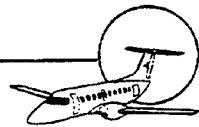
NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

WEIGHT KG	ISA + °C											
	-50	-40	-30	-20	-10	0	10	20	30	40		
12000	FUEL KG	55	58	62	66	69	73	78	86	106	142	
	DISTANCE NM	13	14	15	16	17	18	20	23	31	46	
	TIME MIN	5	5	5	6	6	6	6	7	10	14	
11500	FUEL KG	51	55	58	61	65	68	72	80	97	128	
	DISTANCE NM	12	13	14	15	16	17	18	21	29	42	
	TIME MIN	4	5	5	5	5	6	6	7	9	13	
11000	FUEL KG	48	51	54	57	61	64	67	74	89	116	
	DISTANCE NM	11	12	13	14	15	16	17	20	26	38	
	TIME MIN	4	4	5	5	5	5	6	6	8	12	
10500	FUEL KG	45	48	51	54	57	60	63	69	82	106	
	DISTANCE NM	10	11	12	13	14	15	16	18	24	34	
	TIME MIN	4	4	4	5	5	5	5	6	8	11	
10000	FUEL KG	42	45	47	50	53	56	59	64	76	96	
	DISTANCE NM	10	10	11	12	13	14	15	17	22	31	
	TIME MIN	4	4	4	4	5	5	5	6	7	10	
9500	FUEL KG	39	42	44	47	49	52	55	60	70	88	
	DISTANCE NM	9	10	10	11	12	13	14	16	21	29	
	TIME MIN	3	4	4	4	4	5	5	7	9	9	
9000	FUEL KG	37	39	41	43	46	48	51	55	65	81	
	DISTANCE NM	8	9	10	10	11	12	13	15	19	26	
	TIME MIN	3	3	3	4	4	4	5	6	6	8	
8500	FUEL KG	34	36	38	40	43	45	47	51	60	74	
	DISTANCE NM	8	8	9	10	10	11	12	14	18	24	
	TIME MIN	3	3	3	3	4	4	4	6	6	7	
8000	FUEL KG	32	34	36	38	40	42	44	48	55	68	
	DISTANCE NM	7	8	6	9	10	10	11	13	16	22	
	TIME MIN	3	3	3	3	3	3	4	4	5	7	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 12000 FT
CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

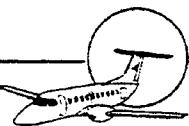
PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

**WEIGHT
KG**
ISA + °C

			-50	-40	-30	-20	-10	0	10	20	30	40
12000	FUEL DISTANCE TIME	KG NM MIN	60 14 5	63 15 5	67 16 6	71 17 6	76 19 6	80 20 7	85 22 7	95 26 8	117 35 11	157 52 16
11500	FUEL DISTANCE TIME	KG NM MIN	56 13 5	59 14 5	63 15 5	67 16 6	71 17 6	75 19 6	79 20 7	88 24 8	107 32 10	141 47 15
11000	FUEL DISTANCE TIME	KG NM MIN	52 12 4	55 13 5	59 14 5	62 15 5	66 16 6	69 17 6	74 19 6	82 22 7	98 30 9	128 43 13
10500	FUEL DISTANCE TIME	KG NM MIN	49 11 4	52 12 4	55 13 5	58 14 5	61 15 5	65 16 5	69 18 6	76 21 7	91 27 9	116 39 12
10000	FUEL DISTANCE TIME	KG NM MIN	46 11 4	48 11 4	51 12 4	54 13 5	57 14 5	60 15 5	64 16 5	70 19 6	84 25 8	106 35 11
9500	FUEL DISTANCE TIME	KG NM MIN	43 10 4	45 11 4	48 11 4	51 12 4	53 13 4	56 14 5	59 15 5	65 18 6	77 23 7	97 32 10
9000	FUEL DISTANCE TIME	KG NM MIN	40 9 3	42 10 4	45 11 4	47 11 4	50 12 4	52 13 4	55 14 5	61 16 5	71 21 7	89 29 9
8500	FUEL DISTANCE TIME	KG NM MIN	37 8 3	39 9 3	42 10 4	44 11 4	46 11 4	49 12 4	51 13 4	56 15 5	66 20 6	81 27 8
8000	FUEL DISTANCE TIME	KG NM MIN	35 8 3	37 8 3	39 9 3	41 10 3	43 11 4	45 11 4	48 12 4	52 14 5	60 18 6	74 25 8

20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 13000 FT

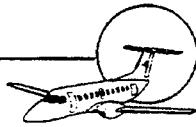
CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

WEIGHT KG	ISA + °C																			
	-50			-40			-30			-20			-10			0	10	20	30	40
FUEL DISTANCE TIME	KG NM MIN	65	69	73	78	82	87	93	104	128	173	155	136	117	96	89	108	140		
12000	KG NM MIN	15	16	18	19	21	22	24	29	39	59	53	41	32	29	39	59	88	128	173
11500	KG NM MIN	14	15	17	18	19	21	22	27	36	56	53	42	31	27	36	56	85	117	155
11000	KG NM MIN	13	14	15	17	18	19	21	25	33	53	48	37	26	25	33	48	82	108	140
10500	KG NM MIN	12	13	14	16	17	18	19	23	30	50	43	34	23	22	30	43	77	99	127
10000	KG NM MIN	12	12	13	15	16	17	18	21	28	48	39	30	21	20	28	39	72	91	116
9500	KG NM MIN	11	12	13	15	16	17	18	20	26	46	36	30	20	26	36	46	71	84	106
9000	KG NM MIN	10	11	12	13	14	15	16	17	18	45	35	30	20	24	33	45	66	78	97
8500	KG NM MIN	9	10	11	12	13	14	15	16	17	44	34	29	19	22	30	44	61	71	88
8000	KG NM MIN	8	9	9	10	11	12	13	14	15	43	33	28	18	20	27	33	57	66	81

SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 14000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

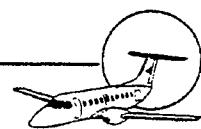
SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FTWEIGHT
KG

ISA + °C

			-50	-40	-30	-20	-10	0	10	20	30	40
	FUEL	KG	70	75	79	84	89	95	101	114	140	190
	DISTANCE	NM	17	18	20	21	23	25	27	32	44	66
	TIME	MIN	6	6	7	7	8	8	9	10	14	20
12000	FUEL	KG	65	70	74	79	83	88	94	105	128	170
12000	DISTANCE	NM	16	17	18	20	21	23	25	30	40	59
12000	TIME	MIN	6	6	6	7	7	8	8	9	12	18
11500	FUEL	KG	61	65	69	73	78	82	87	97	117	153
11500	DISTANCE	NM	15	16	17	18	20	21	23	28	37	53
11500	TIME	MIN	5	6	6	6	7	7	7	9	11	16
11000	FUEL	KG	57	61	65	68	72	76	81	90	108	139
11000	DISTANCE	NM	14	15	16	17	18	20	21	26	34	48
11000	TIME	MIN	5	5	6	6	6	7	7	8	10	15
10500	FUEL	KG	53	57	60	64	67	71	75	83	99	126
10500	DISTANCE	NM	13	14	15	16	17	18	20	24	31	43
10500	TIME	MIN	5	5	5	5	6	6	6	7	10	13
10000	FUEL	KG	50	53	56	59	63	66	70	77	91	115
10000	DISTANCE	NM	12	13	14	15	16	17	19	22	28	39
10000	TIME	MIN	4	5	5	5	5	6	6	7	9	12
9500	FUEL	KG	47	49	52	55	58	62	65	72	84	105
9500	DISTANCE	NM	11	12	13	14	15	16	17	20	26	36
9500	TIME	MIN	4	4	5	5	5	6	6	6	8	11
9000	FUEL	KG	43	46	49	51	54	57	60	66	77	96
9000	DISTANCE	NM	10	11	12	13	14	15	16	19	24	33
9000	TIME	MIN	4	4	4	4	5	5	5	6	7	10
8500	FUEL	KG	40	43	45	48	50	53	56	61	71	87
8500	DISTANCE	NM	9	10	11	12	13	14	15	17	22	30
8500	TIME	MIN	4	4	4	4	4	5	5	5	7	9
8000	FUEL	KG	40	43	45	48	50	53	56	61	71	87
8000	DISTANCE	NM	9	10	11	12	13	14	15	17	22	30
8000	TIME	MIN	4	4	4	4	4	5	5	5	7	9



20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 15000 FT

CRUISE CONFIGURATION

NP: 100% OR

100% UP TO 12000 FT AND

90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

WEIGHT KG	FUEL KG	DISTANCE NM	TIME MIN	ISA + °C									
				-40	-30	-20	-10	0	10	20	30	35	40
12000	80	86	91	97	103	109	124	153	176	208			
	20	22	23	25	27	30	36	49	59	74			
	7	7	8	8	9	9	11	15	18	22			
11500	75	80	85	90	95	101	114	140	159	186			
	19	20	22	23	25	27	33	45	54	66			
	7	7	7	8	8	9	10	14	16	20			
11000	70	74	79	84	89	94	105	128	144	167			
	17	19	20	22	23	25	31	41	48	59			
	6	7	7	7	8	8	10	13	15	18			
10500	65	69	74	78	82	88	97	117	131	151			
	16	17	19	20	22	24	28	37	44	53			
	6	6	6	7	7	8	9	11	13	16			
10000	61	65	69	73	77	81	90	107	120	136			
	15	16	18	19	20	22	26	34	40	48			
	5	6	6	6	7	7	8	11	12	15			
9500	57	60	64	68	71	76	84	99	110	124			
	14	15	16	18	19	20	24	31	37	44			
	5	5	6	6	6	7	8	10	11	13			
9000	53	56	59	63	66	70	77	91	100	113			
	13	14	15	16	17	19	22	29	34	40			
	5	5	5	5	6	6	7	9	10	12			
8500	49	52	55	58	61	65	71	84	92	103			
	12	13	14	15	16	17	21	27	31	36			
	4	5	5	5	5	6	6	8	9	11			
8000	46	48	51	54	57	60	66	77	84	94			
	11	12	13	14	15	16	19	24	28	33			
	4	4	4	5	5	5	6	8	9	10			


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 16000 FT

CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

WEIGHT KG			ISA + °C									
			-40	-30	-20	-10	0	10	20	30	35	40
	FUEL DISTANCE TIME	KG NM MIN	86 22 8	92 24 8	98 26 9	104 28 9	111 30 10	118 33 10	134 40 12	167 55 17	192 67 20	229 83 25
12000	FUEL DISTANCE TIME	KG NM MIN	80 20 7	86 22 8	91 24 8	97 26 8	103 28 9	109 30 10	123 37 11	152 50 15	173 60 18	203 74 22
11500	FUEL DISTANCE TIME	KG NM MIN	75 19 7	80 20 7	85 22 7	90 24 8	95 26 8	101 28 9	114 34 10	138 45 14	156 54 16	181 66 20
11000	FUEL DISTANCE TIME	KG NM MIN	70 18 6	74 19 7	79 21 7	84 22 7	89 24 8	94 26 8	105 31 10	127 41 13	142 49 15	163 59 18
10500	FUEL DISTANCE TIME	KG NM MIN	65 16 6	69 18 6	74 19 6	78 21 7	82 22 7	87 24 8	97 29 9	116 38 12	130 44 13	148 53 16
10000	FUEL DISTANCE TIME	KG NM MIN	61 15 5	65 16 6	68 18 6	72 19 6	77 20 7	81 22 7	90 26 8	106 35 11	118 40 12	134 48 14
9500	FUEL DISTANCE TIME	KG NM MIN	57 14 5	60 15 5	64 16 6	67 18 6	71 19 6	75 21 7	83 24 8	98 32 10	108 37 11	122 44 13
9000	FUEL DISTANCE TIME	KG NM MIN	53 13 5	56 14 5	59 15 5	62 16 5	66 18 6	70 19 6	77 23 7	90 29 9	99 34 10	111 40 12
8500	FUEL DISTANCE TIME	KG NM MIN	49 12 4	52 13 5	55 14 5	58 15 5	61 16 5	65 18 6	71 21 7	83 27 8	91 31 9	101 36 11
8000	FUEL DISTANCE TIME	KG NM MIN	49 12 4	52 13 5	55 14 5	58 15 5	61 16 5	65 18 6	71 21 7	83 27 8	91 31 9	101 36 11

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 17000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

WEIGHT KG	ISA + °C											
			-40	-30	-20	-10	0	10	20	30	35	40
FUEL DISTANCE TIME	KG NM MIN	92 24 8	98 26 9	105 28 9	112 30 10	119 33 10	127 36 11	145 44 14	182 61 18	210 75 22	252 94 28	
12000												
11500												
11000												
10500												
10000												
9500												
9000												
8500												
8000												


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 18000 FT
CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

**WEIGHT
KG**
ISA + °C

			-40	-30	-20	-10	0	10	20	30	35	40
12000	FUEL DISTANCE TIME	KG NM MIN	98 25 9	105 28 9	112 30 10	119 33 11	127 35 11	137 39 12	157 49 15	198 68 20	230 84 25	278 107 31
11500	FUEL DISTANCE TIME	KG NM MIN	91 24 8	97 26 9	104 28 9	111 30 10	118 33 10	126 36 11	144 45 14	178 61 18	205 74 22	243 93 27
11000	FUEL DISTANCE TIME	KG NM MIN	85 22 8	91 24 8	97 26 9	103 28 9	109 30 10	117 34 10	132 41 13	161 55 17	184 66 20	215 82 24
10500	FUEL DISTANCE TIME	KG NM MIN	79 20 7	84 22 8	90 24 8	95 26 9	101 28 9	108 31 10	122 38 12	147 50 15	166 60 18	192 73 21
10000	FUEL DISTANCE TIME	KG NM MIN	74 19 7	79 21 7	84 22 7	89 24 8	94 26 8	100 29 9	112 35 11	134 46 14	150 54 16	172 65 19
9500	FUEL DISTANCE TIME	KG NM MIN	69 18 6	73 19 7	78 21 7	82 22 7	87 24 8	93 26 8	103 32 10	123 42 13	137 49 15	155 58 17
9000	FUEL DISTANCE TIME	KG NM MIN	64 16 6	68 18 6	72 19 6	76 21 7	81 22 7	86 24 8	95 29 9	112 38 12	125 44 13	141 53 16
8500	FUEL DISTANCE TIME	KG NM MIN	59 15 5	63 16 6	67 18 6	71 19 6	75 21 7	79 23 7	88 27 8	103 35 11	114 40 12	128 48 14
8000	FUEL DISTANCE TIME	KG NM MIN	55 14 5	58 15 5	62 16 6	66 18 6	69 19 6	73 21 7	81 25 8	94 32 10	104 37 11	116 43 13

20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 19000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

**SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT**

WEIGHT KG			ISA + °C									
			-40	-30	-20	-10	0	10	20	30	35	40
12000	FUEL DISTANCE TIME	KG NM MIN	104 27 9	111 30 10	119 33 11	127 35 11	135 38 12	147 43 13	170 54 16	215 77 23	253 95 28	310 124 36
11500	FUEL DISTANCE TIME	KG NM MIN	97 25 9	104 28 9	111 30 10	118 33 11	125 35 11	135 40 12	155 49 15	193 68 20	223 83 25	267 105 31
11000	FUEL DISTANCE TIME	KG NM MIN	90 24 8	96 26 9	103 28 9	109 30 10	116 33 10	125 37 11	142 45 14	174 61 18	199 74 22	234 92 27
10500	FUEL DISTANCE TIME	KG NM MIN	84 22 8	90 24 8	95 26 9	101 28 9	108 30 10	115 34 11	130 41 13	158 55 17	179 66 20	208 81 24
10000	FUEL DISTANCE TIME	KG NM MIN	78 20 7	83 22 8	89 24 8	94 26 8	100 28 9	107 31 10	120 38 12	144 50 15	162 59 18	186 72 21
9500	FUEL DISTANCE TIME	KG NM MIN	73 19 7	77 21 7	82 22 7	87 24 8	92 26 8	99 29 9	110 35 11	131 46 14	147 54 16	167 64 19
9000	FUEL DISTANCE TIME	KG NM MIN	68 18 6	72 19 6	76 21 7	81 22 7	86 24 8	91 27 8	102 32 10	120 42 12	133 49 14	151 58 17
8500	FUEL DISTANCE TIME	KG NM MIN	63 16 6	67 18 6	71 19 6	75 21 7	79 22 7	85 25 8	94 29 9	110 38 11	122 44 13	137 52 15
8000	FUEL DISTANCE TIME	KG NM MIN	58 15 5	62 16 6	66 18 6	69 19 6	73 20 7	78 23 7	86 27 8	101 35 10	111 40 12	124 47 14


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 20000 FT
CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

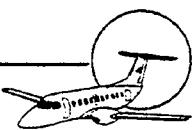
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

**WEIGHT
KG**
ISA + °C

			-30	-20	-10	-5	0	10	20	30	35	40
12000	FUEL DISTANCE TIME	KG NM MIN	118 32 11	126 35 12	135 38 12	140 40 13	144 42 13	157 48 15	183 60 18	235 86 25	280 109 32	350 145 42
11500	FUEL DISTANCE TIME	KG NM MIN	110 30 10	117 32 11	125 35 11	129 37 12	133 38 12	145 44 13	167 55 16	209 76 22	244 94 27	296 121 35
11000	FUEL DISTANCE TIME	KG NM MIN	102 28 9	109 30 10	116 33 10	119 34 11	123 35 11	133 40 12	152 50 15	188 68 20	216 83 24	257 104 30
10500	FUEL DISTANCE TIME	KG NM MIN	95 26 9	101 28 9	107 30 10	111 31 10	114 33 10	123 37 11	139 45 14	170 61 18	193 73 21	226 90 26
10000	FUEL DISTANCE TIME	KG NM MIN	88 24 8	94 26 9	100 28 9	103 29 9	106 30 10	114 34 10	128 41 13	154 55 16	174 66 19	201 80 23
9500	FUEL DISTANCE TIME	KG NM MIN	82 22 7	87 24 8	92 26 8	95 27 9	98 28 9	105 31 10	118 38 11	141 50 15	157 59 17	180 71 21
9000	FUEL DISTANCE TIME	KG NM MIN	76 20 7	81 22 7	86 24 8	88 25 8	91 26 8	97 29 9	108 35 11	128 46 14	143 53 16	162 64 19
8500	FUEL DISTANCE TIME	KG NM MIN	70 19 6	75 20 7	79 22 7	82 23 7	84 24 8	90 27 8	100 32 10	117 42 12	130 48 14	146 57 17
8000	FUEL DISTANCE TIME	KG NM MIN	65 17 6	69 19 6	73 20 7	75 21 7	78 22 7	83 24 8	92 29 9	107 38 11	118 44 13	132 52 15

20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 21000 FT

CRUISE CONFIGURATION

NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

WEIGHT KG				ISA + °C									
				-30	-20	-10	-5	0	10	20	30	35	40
12000	FUEL DISTANCE TIME	KG NM MIN	125 34 11	134 38 12	143 41 13	148 43 14	154 45 14	169 52 16	198 67 20	258 98 28	313 126 36	407 177 50	
11500	FUEL DISTANCE TIME	KG NM MIN	116 32 11	124 35 11	132 38 12	137 40 13	142 42 13	155 48 15	179 60 18	228 86 25	269 107 31	333 141 40	
11000	FUEL DISTANCE TIME	KG NM MIN	108 30 10	115 32 11	123 35 11	127 37 12	131 38 12	142 44 13	163 55 16	203 76 22	236 93 27	283 119 34	
10500	FUEL DISTANCE TIME	KG NM MIN	100 27 9	107 30 10	113 32 10	117 34 11	121 35 11	131 40 12	149 50 15	183 68 20	209 82 24	246 102 29	
10000	FUEL DISTANCE TIME	KG NM MIN	93 25 9	99 28 9	105 30 10	108 31 10	112 33 10	121 37 11	137 45 14	165 61 18	187 73 21	217 89 26	
9500	FUEL DISTANCE TIME	KG NM MIN	86 23 8	92 26 8	97 28 9	100 29 9	104 30 9	112 34 10	125 41 12	150 55 16	169 65 19	194 79 23	
9000	FUEL DISTANCE TIME	KG NM MIN	80 22 7	85 24 8	90 26 8	93 27 8	96 28 9	103 31 10	115 38 11	137 50 15	153 59 17	174 70 20	
8500	FUEL DISTANCE TIME	KG NM MIN	74 20 7	79 22 7	84 24 8	86 25 8	89 26 8	95 29 9	106 35 10	125 45 13	138 53 15	156 63 18	
8000	FUEL DISTANCE TIME	KG NM MIN	69 19 6	73 20 7	77 22 7	79 23 7	82 24 7	88 26 8	97 32 10	114 41 12	126 48 14	141 57 16	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 22000 FT
CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

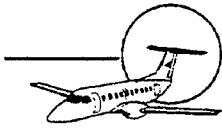
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

**WEIGHT
KG**
ISA + °C

			-30	-20	-10	-5	0	10	20	30	35	40
12000	FUEL DISTANCE TIME	KG NM MIN	132 37 12	142 40 13	152 44 14	158 47 15	164 49 15	181 58 17	215 75 22	286 112 32	357 151 43	510 237 65
11500	FUEL DISTANCE TIME	KG NM MIN	122 34 11	131 37 12	140 41 13	145 43 13	151 45 14	166 52 16	193 67 20	249 97 28	299 124 35	385 172 48
11000	FUEL DISTANCE TIME	KG NM MIN	113 32 10	121 34 11	130 38 12	134 39 12	139 42 13	152 48 14	175 60 18	221 85 25	259 106 30	318 139 39
10500	FUEL DISTANCE TIME	KG NM MIN	105 29 10	112 32 10	120 35 11	124 36 11	128 38 12	139 44 13	160 55 16	197 75 22	228 92 26	271 117 33
10000	FUEL DISTANCE TIME	KG NM MIN	98 27 9	104 29 10	111 32 10	115 34 11	119 35 11	128 40 12	146 50 15	178 67 20	202 81 23	237 101 29
9500	FUEL DISTANCE TIME	KG NM MIN	91 25 8	97 27 9	103 30 9	106 31 10	110 33 10	118 37 11	133 45 13	161 61 18	181 72 21	209 88 25
9000	FUEL DISTANCE TIME	KG NM MIN	84 23 8	90 25 8	95 27 9	98 29 9	101 30 9	109 34 10	122 41 12	146 55 16	163 65 19	187 78 22
8500	FUEL DISTANCE TIME	KG NM MIN	78 21 7	83 23 8	88 25 8	91 26 8	94 28 9	101 31 10	112 38 11	133 50 14	148 58 17	167 70 20
8000	FUEL DISTANCE TIME	KG NM MIN	72 20 7	77 21 7	81 23 7	84 24 8	86 25 8	93 29 9	103 35 10	121 45 13	134 53 15	151 62 18

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SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 23000 FT

CRUISE CONFIGURATION

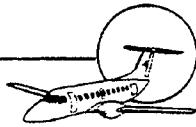
NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

WEIGHT KG	ISA + °C											
	-30	-20	-10	-5	0	10	20	30	35	40		
12000	FUEL KG	139	150	161	167	175	195	234	322	426	-	-
	DISTANCE NM	39	43	48	50	54	64	85	132	191	-	-
	TIME MIN	13	14	15	16	16	19	25	37	53	-	-
11500	FUEL KG	129	138	148	154	160	177	209	275	341	480	
	DISTANCE NM	36	40	44	46	49	58	75	111	148	230	
	TIME MIN	12	13	14	14	15	17	22	32	41	63	
11000	FUEL KG	119	128	137	142	147	162	189	241	287	367	
	DISTANCE NM	34	37	40	43	45	53	67	96	122	169	
	TIME MIN	11	12	13	13	14	16	20	27	34	47	
10500	FUEL KG	111	118	126	131	136	148	171	214	249	304	
	DISTANCE NM	31	34	37	39	41	48	60	84	105	136	
	TIME MIN	10	11	12	12	13	14	18	24	30	38	
10000	FUEL KG	103	110	117	121	125	136	156	191	220	261	
	DISTANCE NM	29	31	34	36	38	44	55	75	91	115	
	TIME MIN	10	10	11	11	12	13	16	21	26	32	
9500	FUEL KG	95	102	108	112	116	125	142	172	196	228	
	DISTANCE NM	27	29	32	33	35	40	50	67	81	100	
	TIME MIN	9	9	10	11	12	15	19	23	28		
9000	FUEL KG	88	94	100	103	107	115	130	156	175	202	
	DISTANCE NM	25	27	29	31	32	37	45	60	72	87	
	TIME MIN	8	9	9	10	11	13	17	20	25		
8500	FUEL KG	82	87	93	95	99	106	119	141	158	180	
	DISTANCE NM	23	25	27	28	30	34	41	54	64	77	
	TIME MIN	8	8	9	9	10	12	16	18	22		
8000	FUEL KG	76	80	85	88	91	98	109	129	143	161	
	DISTANCE NM	21	23	25	26	27	31	38	49	58	69	
	TIME MIN	7	7	8	8	8	9	11	14	17	20	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 24000 FT
CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

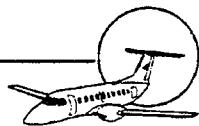
PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

**WEIGHT
KG**
ISA + °C

			-30	-20	-10	-5	0	10	20	30	35	40
12000	FUEL DISTANCE TIME	KG NM MIN	147 42 14	158 46 15	171 52 16	178 55 17	186 59 18	210 71 21	257 97 28	375 163 45	596 295 79	- - -
11500	FUEL DISTANCE TIME	KG NM MIN	136 39 13	146 43 14	157 47 15	163 50 15	170 54 16	190 64 19	228 85 24	309 131 37	405 188 51	- - -
11000	FUEL DISTANCE TIME	KG NM MIN	125 36 12	135 39 13	145 43 14	150 46 14	156 49 15	173 58 17	204 75 22	266 110 31	326 146 40	455 226 61
10500	FUEL DISTANCE TIME	KG NM MIN	116 33 11	124 36 12	133 40 12	138 42 13	144 45 14	158 53 16	184 67 19	233 95 27	276 121 34	350 166 45
10000	FUEL DISTANCE TIME	KG NM MIN	108 31 10	115 33 11	123 37 12	128 39 12	132 41 13	145 48 14	167 60 18	207 84 24	240 104 29	291 135 37
9500	FUEL DISTANCE TIME	KG NM MIN	100 28 9	107 31 10	114 34 11	118 36 11	122 38 12	133 44 13	152 55 16	185 74 21	212 91 25	250 114 32
9000	FUEL DISTANCE TIME	KG NM MIN	93 26 9	99 28 9	105 31 10	109 33 10	113 35 11	122 40 12	138 50 14	167 67 19	189 80 23	219 99 27
8500	FUEL DISTANCE TIME	KG NM MIN	86 24 8	91 26 8	97 29 9	100 30 9	104 32 10	112 37 11	126 45 13	151 60 17	169 71 20	194 86 24
8000	FUEL DISTANCE TIME	KG NM MIN	79 22 7	84 24 8	90 27 8	93 28 9	96 29 9	103 34 10	116 41 12	137 54 15	152 64 18	173 76 21

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SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 25000 FT

CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

WEIGHT KG	ISA + °C											
			-20	-10	-5	0	5	10	20	30	35	40
FUEL DISTANCE TIME	KG NM MIN	167 50 16	181 56 17	189 60 18	199 65 19	212 71 21	228 80 23	286 113 32	477 225 61	- -	- -	- -
12000												
11500												
11000												
10500												
10000												
9500												
9000												
8500												
8000												


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 26000 FT
CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

**WEIGHT
KG**
ISA + °C

			-20	-10	-5	0	5	10	20	30	35	40
12000	FUEL DISTANCE TIME	KG NM MIN	176 53 17	192 61 19	202 66 20	214 72 21	228 80 23	248 91 26	326 136 38	- - -	- - -	- - -
11500	FUEL DISTANCE TIME	KG NM MIN	162 49 15	176 55 17	184 60 18	194 65 19	206 71 21	221 80 23	277 113 31	458 224 60	- - -	- - -
11000	FUEL DISTANCE TIME	KG NM MIN	149 45 14	161 51 15	168 54 16	177 59 17	186 64 19	199 71 21	242 97 27	346 161 43	540 287 75	- - -
10500	FUEL DISTANCE TIME	KG NM MIN	137 41 13	148 46 14	154 50 15	161 53 16	170 58 17	180 64 19	214 84 24	287 129 35	372 184 49	- - -
10000	FUEL DISTANCE TIME	KG NM MIN	127 38 12	137 43 13	142 45 14	148 49 15	155 53 16	164 58 17	192 75 21	248 109 30	301 144 39	420 224 59
9500	FUEL DISTANCE TIME	KG NM MIN	117 35 11	126 39 12	131 42 13	136 44 13	142 48 14	150 52 15	173 67 19	218 95 26	256 120 33	323 164 44
9000	FUEL DISTANCE TIME	KG NM MIN	108 32 10	116 36 11	120 38 12	125 41 12	131 44 13	137 48 14	157 60 17	193 83 23	223 102 28	270 133 36
8500	FUEL DISTANCE TIME	KG NM MIN	100 30 9	107 33 10	111 35 11	115 37 11	120 40 12	126 43 13	143 54 15	173 74 21	197 89 25	232 113 30
8000	FUEL DISTANCE TIME	KG NM MIN	92 27 9	99 30 9	102 32 10	106 34 10	110 37 11	115 40 12	130 49 14	156 66 18	176 79 22	203 97 26

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 27000 FT

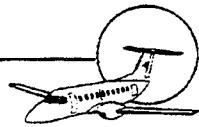
CRUISE CONFIGURATION

NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

WEIGHT			ISA + °C										
KG			-20	-10	-5	0	5	10	20	30	35	40	
	FUEL	KG	186	205	216	230	248	274	392	-	-	-	
	DISTANCE	NM	58	67	73	80	90	105	176	-	-	-	
	TIME	MIN	18	20	21	23	26	30	47	-	-	-	
12000	FUEL	KG	171	186	196	207	222	241	315	-	-	-	
12000	DISTANCE	NM	53	60	65	71	80	91	136	-	-	-	
12000	TIME	MIN	16	18	19	21	23	26	37	-	-	-	
11500	FUEL	KG	157	171	179	188	200	215	268	443	-	-	
11500	DISTANCE	NM	48	55	59	64	71	80	112	226	-	-	
11500	TIME	MIN	15	17	18	19	21	23	31	59	-	-	
11000	FUEL	KG	144	156	163	171	181	193	234	334	532	-	
11000	DISTANCE	NM	44	50	54	58	64	71	96	161	297	-	
11000	TIME	MIN	14	15	16	17	19	20	27	43	76	-	
10500	FUEL	KG	133	144	150	157	165	175	208	278	360	-	
10500	DISTANCE	NM	41	46	49	53	58	64	84	129	185	-	
10500	TIME	MIN	13	14	15	16	17	18	24	35	49	-	
10000	FUEL	KG	123	132	138	144	151	159	186	239	291	410	
10000	DISTANCE	NM	38	42	45	48	52	58	75	109	144	229	
10000	TIME	MIN	12	13	13	14	15	17	21	30	38	59	
9500	FUEL	KG	114	122	127	132	138	145	168	210	247	313	
9500	DISTANCE	NM	35	39	41	44	48	52	67	94	119	165	
9500	TIME	MIN	11	12	12	13	14	15	19	26	32	43	
9000	FUEL	KG	105	112	116	121	126	133	152	187	215	260	
9000	DISTANCE	NM	32	36	38	40	44	48	60	83	102	134	
9000	TIME	MIN	10	11	11	12	13	14	17	23	28	35	
8500	FUEL	KG	97	103	107	111	116	121	138	167	190	224	
8500	DISTANCE	NM	29	33	35	37	40	43	54	73	89	113	
8500	TIME	MIN	9	10	10	11	12	13	15	20	24	30	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 28000 FT

CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

**WEIGHT
KG**
ISA + °C

			-20	-10	-5	0	5	10	20	30	35	40
12000	FUEL DISTANCE TIME	KG NM MIN	197 63 19	218 73 22	232 81 24	249 90 26	273 104 29	310 126 35	- -	- -	- -	- -
11500	FUEL DISTANCE TIME	KG NM MIN	180 57 17	198 66 20	209 72 21	223 80 23	241 90 26	266 105 29	378 176 47	- -	- -	- -
11000	FUEL DISTANCE TIME	KG NM MIN	165 52 16	181 60 18	190 65 19	201 71 21	215 80 23	234 91 25	305 136 37	- -	- -	- -
10500	FUEL DISTANCE TIME	KG NM MIN	152 48 15	165 54 16	173 59 17	182 64 19	194 71 20	209 80 23	260 113 31	434 230 59	- -	- -
10000	FUEL DISTANCE TIME	KG NM MIN	140 44 13	152 50 15	158 53 16	166 58 17	176 64 18	188 71 20	227 96 26	324 162 43	- -	- -
9500	FUEL DISTANCE TIME	KG NM MIN	129 40 12	139 45 14	145 49 14	152 53 15	160 58 17	170 64 18	201 84 23	269 130 35	351 188 49	- -
9000	FUEL DISTANCE TIME	KG NM MIN	119 37 11	128 42 13	133 45 13	139 48 14	146 52 15	154 58 16	180 75 21	232 109 29	282 145 38	409 239 61
8500	FUEL DISTANCE TIME	KG NM MIN	110 34 11	118 38 12	122 41 12	128 44 13	133 47 14	141 52 15	162 67 18	203 94 25	239 120 32	305 168 43
8000	FUEL DISTANCE TIME	KG NM MIN	101 31 10	108 35 11	112 37 11	117 40 12	122 43 13	128 47 14	147 60 17	180 83 22	208 102 27	253 135 35

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 29000 FT

CRUISE CONFIGURATION

NP: 1.00% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

WEIGHT KG	ISA + °C											
	-20			-10			-5			0		
FUEL KG	DISTANCE NM	TIME MIN	FUEL KG	DISTANCE NM	TIME MIN	FUEL KG	DISTANCE NM	TIME MIN	FUEL KG	DISTANCE NM	TIME MIN	FUEL KG
12000			209	235	251	274	307	366	-	-	-	-
			68	82	91	104	124	160	-	-	-	-
			21	24	26	29	34	43	-	-	-	-
11500			190	211	225	242	265	300	-	-	-	-
			62	73	80	90	104	126	-	-	-	-
			19	21	23	26	29	34	-	-	-	-
11000			174	192	203	216	233	258	367	-	-	-
			56	66	72	80	90	106	177	-	-	-
			17	19	21	23	25	29	46	-	-	-
10500			160	175	184	195	208	227	295	-	-	-
			51	59	65	71	79	91	136	-	-	-
			16	18	19	20	22	25	36	-	-	-
10000			147	160	168	177	188	202	251	431	-	-
			47	54	58	64	71	80	113	241	-	-
			14	16	17	18	20	22	30	61	-	-
9500			135	147	153	161	170	182	220	316	-	-
			43	49	53	58	63	71	97	164	-	-
			13	15	16	17	18	20	26	43	-	-
9000			125	135	140	147	155	165	195	261	347	-
			40	45	48	52	57	64	84	131	196	-
			12	13	14	15	16	18	23	34	50	-
8500			115	124	129	134	141	149	174	224	275	421
			36	41	44	48	52	57	75	110	148	262
			11	12	13	14	15	16	20	29	38	65
8000			106	114	118	123	129	136	157	197	233	301
			33	38	40	43	47	52	66	95	121	174
			10	11	12	13	13	15	18	25	32	44


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 30000 FT

CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

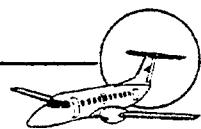
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

WEIGHT KG			ISA + °C									
			-10	-5	0	5	10	15	20	25	30	35
12000	FUEL DISTANCE TIME	KG NM MIN	254 92 26	276 105 29	308 124 34	362 157 42	524 261 67	- - -	- - -	- - -	- - -	- - -
11500	FUEL DISTANCE TIME	KG NM MIN	227 81 23	243 91 26	265 104 29	298 124 34	356 162 43	- - -	- - -	- - -	- - -	- - -
11000	FUEL DISTANCE TIME	KG NM MIN	205 72 21	218 80 23	234 90 25	257 104 29	291 127 34	355 170 44	- - -	- - -	- - -	- - -
10500	FUEL DISTANCE TIME	KG NM MIN	186 65 19	196 71 20	209 79 22	226 90 25	250 106 29	287 131 35	360 181 47	- - -	- - -	- - -
10000	FUEL DISTANCE TIME	KG NM MIN	169 59 17	178 64 18	189 71 20	202 79 22	220 91 25	246 109 29	287 138 36	383 207 53	- - -	- - -
9500	FUEL DISTANCE TIME	KG NM MIN	155 54 16	162 58 17	171 64 18	182 71 20	196 80 22	215 94 25	244 114 30	295 150 39	444 264 65	- - -
9000	FUEL DISTANCE TIME	KG NM MIN	142 49 14	148 53 15	156 57 16	165 63 18	176 71 20	192 82 22	213 97 26	247 122 32	311 170 43	- - -
8500	FUEL DISTANCE TIME	KG NM MIN	130 44 13	136 48 14	142 52 15	150 57 16	159 64 18	172 72 20	189 85 23	214 103 27	255 133 34	351 209 52
8000	FUEL DISTANCE TIME	KG NM MIN	119 41 12	124 44 13	130 47 14	136 52 15	144 57 16	155 65 18	169 75 20	188 89 24	218 111 29	271 153 39

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SUPPLEMENTARY PERFORMANCE
MANUAL

CLIMB PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

ALTITUDE: SEA LEVEL TO 31000 FT

CRUISE CONFIGURATION

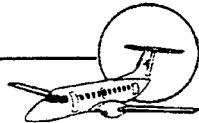
NP: 100% OR
100% UP TO 12000 FT AND
90% ABOVE 12000 FT

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

SPEED SCHEDULE: 170 KIAS AT SL, DECREASING
TO 155 KIAS AT 20000 FT,
155 KIAS ABOVE 20000 FT

WEIGHT KG	ISA + °C										
	-10	-5	0	5	10	15	20	25	30	35	
12000	FUEL KG	279	310	364	517	-	-	-	-	-	
	DISTANCE NM	106	125	158	257	-	-	-	-	-	
	TIME MIN	30	34	42	66	-	-	-	-	-	
11500	FUEL KG	246	267	298	353	-	-	-	-	-	
	DISTANCE NM	92	105	124	159	-	-	-	-	-	
	TIME MIN	26	29	34	42	-	-	-	-	-	
11000	FUEL KG	220	236	257	289	349	-	-	-	-	
	DISTANCE NM	81	91	104	125	165	-	-	-	-	
	TIME MIN	23	25	29	34	43	-	-	-	-	
10500	FUEL KG	198	211	227	249	283	350	-	-	-	
	DISTANCE NM	72	80	90	105	128	175	-	-	-	
	TIME MIN	21	22	25	28	34	45	-	-	-	
10000	FUEL KG	180	190	203	219	243	280	357	-	-	
	DISTANCE NM	65	71	79	90	107	133	189	-	-	
	TIME MIN	19	20	22	25	29	35	48	-	-	
9500	FUEL KG	164	172	183	196	213	239	281	387	-	
	DISTANCE NM	58	64	71	79	92	110	141	221	-	
	TIME MIN	17	18	20	22	25	29	36	55	-	
9000	FUEL KG	149	157	165	176	190	209	238	290	-	
	DISTANCE NM	53	58	63	71	80	94	115	154	-	
	TIME MIN	15	16	18	19	22	25	30	39	-	
8500	FUEL KG	137	143	150	159	170	186	207	241	311	
	DISTANCE NM	48	52	57	63	71	82	98	124	179	
	TIME MIN	14	15	16	17	19	22	26	32	45	
8000	FUEL KG	125	130	137	144	154	166	183	208	250	
	DISTANCE NM	44	47	52	57	63	72	85	104	137	
	TIME MIN	13	14	15	16	17	19	22	27	35	
										372	
										239	
										58	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CLIMB PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
ALTITUDE: SEA LEVEL TO 32000 FT
CRUISE CONFIGURATION

 NP: 100% OR
 100% UP TO 12000 FT AND
 90% ABOVE 12000 FT

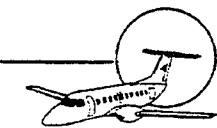
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

 SPEED SCHEDULE: 170 KIAS AT SL , DECREASING
 TO 155 KIAS AT 20000 FT,
 155 KIAS ABOVE 20000 FT

			ISA + °C									
			-10	-5	0	5	10	15	20	25	30	35
	FUEL	KG	314	369	-	-	-	-	-	-	-	-
	DISTANCE	NM	127	161	-	-	-	-	-	-	-	-
	TIME	MIN	35	43	-	-	-	-	-	-	-	-
12000	FUEL	KG	270	301	356	-	-	-	-	-	-	-
12000	DISTANCE	NM	106	125	161	-	-	-	-	-	-	-
12000	TIME	MIN	29	34	42	-	-	-	-	-	-	-
11000	FUEL	KG	238	259	290	347	-	-	-	-	-	-
11000	DISTANCE	NM	91	105	125	164	-	-	-	-	-	-
11000	TIME	MIN	26	29	34	42	-	-	-	-	-	-
10500	FUEL	KG	212	228	250	282	344	-	-	-	-	-
10500	DISTANCE	NM	80	91	105	127	171	-	-	-	-	-
10500	TIME	MIN	23	25	28	33	44	-	-	-	-	-
10000	FUEL	KG	191	204	220	242	277	349	-	-	-	-
10000	DISTANCE	NM	72	80	90	106	130	184	-	-	-	-
10000	TIME	MIN	20	22	25	28	34	46	-	-	-	-
9500	FUEL	KG	173	184	196	213	236	275	363	-	-	-
9500	DISTANCE	NM	64	71	79	91	108	137	204	-	-	-
9500	TIME	MIN	18	20	22	24	28	35	50	-	-	-
9000	FUEL	KG	158	166	177	190	207	233	277	408	-	-
9000	DISTANCE	NM	58	64	71	80	92	112	146	251	-	-
9000	TIME	MIN	17	18	19	22	25	29	37	61	-	-
8500	FUEL	KG	144	151	160	170	184	203	232	288	-	-
8500	DISTANCE	NM	53	57	63	71	81	95	118	162	-	-
8500	TIME	MIN	15	16	17	19	22	25	30	40	-	-
8000	FUEL	KG	131	138	145	154	165	180	201	236	320	-
8000	DISTANCE	NM	48	52	57	63	71	83	99	127	197	-
8000	TIME	MIN	14	15	16	17	19	22	26	32	48	-

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 5000 FT

WEIGHT KG			ISA + °C										
			-60	-40	-30	-20	-10	0	10	20	30	40	
12000	TAS TOTAL	FC	KT KG/H	207 460	215 478	220 489	225 499	229 508	232 514	235 521	239 530	243 539	247 548
11500	TAS TOTAL	FC	KT KG/H	206 455	213 469	219 482	223 491	227 499	230 505	234 514	237 521	242 532	245 538
11000	TAS TOTAL	FC	KT KG/H	205 449	211 461	216 472	221 483	225 491	229 499	232 505	236 514	240 522	243 529
10500	TAS TOTAL	FC	KT KG/H	205 447	210 455	214 463	219 474	224 485	227 491	230 497	234 505	238 514	242 523
10000	TAS TOTAL	FC	KT KG/H	204 442	209 450	213 458	217 466	222 477	226 485	229 491	232 497	236 505	240 514
9500	TAS TOTAL	FC	KT KG/H	202 435	208 445	212 453	216 461	220 469	225 480	228 486	231 492	235 500	238 506
9000	TAS TOTAL	FC	KT KG/H	200 428	207 440	210 446	214 454	218 462	223 472	227 481	230 487	233 493	237 501
8500	TAS TOTAL	FC	KT KG/H	197 419	206 436	209 441	212 447	216 455	221 466	225 474	229 482	232 488	235 494
8000	TAS TOTAL	FC	KT KG/H	194 410	204 429	207 435	211 443	214 449	219 459	223 467	227 475	231 483	234 489


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**FLIGHT PLANNING
ALL ENGINES OPERATING**
PW118A ENGINES**LONG RANGE CRUISE**

CRUISE CONFIGURATION

NP : 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 6000 FT

				ISA + °C										
				-60	-40	-30	-20	-10	0	10	20	30	40	
WEIGHT KG	TAS	FC	KT KG/H	206	215	221	225	230	233	236	240	244	248	
12000	TOTAL	FC	KT KG/H	445	464	477	485	496	502	509	517	526	534	
11500	TAS	FC	KT KG/H	206	213	219	223	227	231	235	238	243	246	525
11000	TAS	FC	KT KG/H	436	449	460	470	478	484	490	501	509	515	
10500	TAS	FC	KT KG/H	204	211	215	220	225	228	231	234	238	243	509
10000	TAS	FC	KT KG/H	428	436	444	454	462	472	478	484	492	498	498
9500	TAS	FC	KT KG/H	203	208	211	216	221	225	229	232	235	239	492
9000	TAS	FC	KT KG/H	423	431	436	446	457	464	473	478	484	488	
8500	TAS	FC	KT KG/H	201	207	210	214	219	223	227	230	233	237	485
8000	TAS	FC	KT KG/H	416	426	431	439	449	457	465	471	476	481	
	TOTAL	FC	KT KG/H	198	206	209	212	216	221	225	229	232	235	477
				407	421	427	432	440	450	458	466	471		
				195	204	208	211	215	219	223	228	231	234	
				398	415	422	428	436	443	451	461	467	472	

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

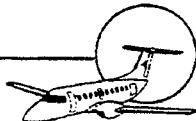
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 7000 FT

WEIGHT KG	TAS TOTAL FC	KT KG/H	ISA + °C									
			-60	-40	-30	-20	-10	0	10	20	30	40
12000	TAS TOTAL FC	KT KG/H	207 434	216 453	222 465	226 473	230 482	234 490	238 499	241 505	245 513	248 519
11500	TAS TOTAL FC	KT KG/H	206 428	214 444	220 457	224 465	228 472	232 481	235 487	240 497	243 503	246 509
11000	TAS TOTAL FC	KT KG/H	205 423	212 436	218 448	222 456	227 466	230 472	233 478	237 486	241 494	245 502
10500	TAS TOTAL FC	KT KG/H	204 417	211 430	216 440	220 448	225 458	229 466	232 471	235 477	239 485	243 493
10000	TAS TOTAL FC	KT KG/H	204 414	209 422	213 430	219 442	223 450	227 457	230 463	233 469	237 477	241 485
9500	TAS TOTAL FC	KT KG/H	203 410	209 419	212 424	216 432	221 442	225 450	228 455	232 463	235 469	240 479
9000	TAS TOTAL FC	KT KG/H	201 403	208 414	210 417	214 425	219 435	224 444	227 450	230 456	234 463	237 469
8500	TAS TOTAL FC	KT KG/H	198 394	206 408	209 413	213 420	217 428	221 435	226 445	229 450	232 456	236 463
8000	TAS TOTAL FC	KT KG/H	196 387	205 403	208 408	211 414	215 421	219 428	224 438	228 446	231 451	234 457


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 8000 FT

			ISA + °C										
			-60	-40	-30	-20	-10	0	10	20	30	40	
WEIGHT	KG												
12000	TAS	KT	207	217	223	227	231	235	239	242	246	250	250
	TOTAL	FC	KG/H	422	443	455	462	470	479	487	493	501	509
11500	TAS	KT	206	215	220	225	229	233	236	241	244	247	247
	TOTAL	FC	KG/H	416	434	444	453	461	469	475	486	491	497
11000	TAS	KT	205	213	218	223	228	231	234	238	242	246	246
	TOTAL	FC	KG/H	410	425	435	445	454	460	466	474	482	490
10500	TAS	KT	205	211	216	221	225	229	233	236	240	244	244
	TOTAL	FC	KG/H	406	417	427	436	444	451	459	465	473	481
10000	TAS	KT	204	210	214	219	224	227	231	234	238	242	242
	TOTAL	FC	KG/H	401	411	418	428	438	443	451	456	464	472
9500	TAS	KT	203	209	212	217	222	226	229	232	236	240	240
	TOTAL	FC	KG/H	396	406	411	420	430	437	443	448	456	464
9000	TAS	KT	202	208	211	215	219	224	228	231	234	238	238
	TOTAL	FC	KG/H	392	401	406	413	421	430	437	443	448	456
8500	TAS	KT	199	206	209	213	217	222	226	229	233	236	236
	TOTAL	FC	KG/H	383	394	399	406	413	423	430	436	443	448
8000	TAS	KT	196	205	208	211	215	220	224	228	232	235	235
	TOTAL	FC	KG/H	374	390	395	400	407	416	423	431	438	443

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 9000 FT

WEIGHT KG			ISA + °C										
			-60	-40	-30	-20	-10	0	10	20	30	40	
12000	TAS	KT	208	219	224	228	232	235	240	244	247	251	
	TOTAL	FC	KG/H	413	435	444	452	459	465	476	484	490	498
11500	TAS	KT	206	216	221	226	231	234	237	242	245	249	
	TOTAL	FC	KG/H	404	424	433	442	452	458	464	474	480	487
11000	TAS	KT	205	213	220	224	228	232	235	239	243	247	
	TOTAL	FC	KG/H	398	413	426	434	441	449	455	463	470	478
10500	TAS	KT	205	212	217	222	226	230	233	237	241	245	
	TOTAL	FC	KG/H	394	406	416	425	432	440	446	453	461	469
10000	TAS	KT	204	210	215	220	225	228	231	235	239	243	
	TOTAL	FC	KG/H	389	399	408	417	426	432	437	445	452	459
9500	TAS	KT	203	209	213	218	222	227	229	232	237	241	
	TOTAL	FC	KG/H	384	393	400	409	417	426	429	434	444	451
9000	TAS	KT	202	208	211	216	220	224	228	231	234	238	
	TOTAL	FC	KG/H	379	388	393	402	409	416	423	429	434	441
8500	TAS	KT	200	207	210	213	218	222	226	230	233	236	
	TOTAL	FC	KG/H	372	383	388	393	402	409	416	423	428	433
8000	TAS	KT	196	206	208	212	216	221	225	228	232	235	
	TOTAL	FC	KG/H	362	379	381	388	395	404	411	416	423	428


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**FLIGHT PLANNING
ALL ENGINES OPERATING**
PW118A ENGINES**LONG RANGE CRUISE**

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 10000 FT

WEIGHT KG			ISA + °C										
			-50	-40	-30	-20	-10	0	10	20	30	40	
12000	TAS TOTAL	FC	KT KG/H	213 412	221 428	225 434	229 442	233 449	237 457	242 467	245 473	249 481	253 489
11500	TAS TOTAL	FC	KT KG/H	211 402	218 416	223 425	227 432	231 440	235 447	239 455	243 463	246 469	250 476
11000	TAS TOTAL	FC	KT KG/H	209 394	214 403	221 416	225 423	229 430	233 438	237 446	240 452	244 459	247 464
10500	TAS TOTAL	FC	KT KG/H	208 387	212 395	218 406	223 415	227 422	231 429	234 435	239 444	242 450	246 457
10000	TAS TOTAL	FC	KT KG/H	207 381	211 388	215 396	220 405	225 414	229 420	232 426	236 433	240 441	244 448
9500	TAS TOTAL	FC	KT KG/H	206 376	209 381	213 388	218 397	223 406	227 413	230 418	233 423	238 432	242 439
9000	TAS TOTAL	FC	KT KG/H	205 371	208 375	211 380	216 389	221 398	225 405	229 412	232 417	235 422	239 429
8500	TAS TOTAL	FC	KT KG/H	204 366	207 371	210 375	213 380	218 389	223 398	227 404	230 410	233 414	237 421
8000	TAS TOTAL	FC	KT KG/H	203 362	206 366	209 371	212 375	216 382	221 391	225 398	228 402	232 409	235 414

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

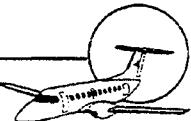
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 11000 FT

WEIGHT KG				ISA + °C									
				-50	-40	-30	-20	-10	0	10	20	30	40
12000	TAS TOTAL	FC	KT KG/H	217 409	222 418	225 423	230 432	234 439	239 449	243 457	246 463	250 471	255 480
11500	TAS TOTAL	FC	KT KG/H	212 393	220 409	224 416	228 422	232 430	236 437	240 445	244 453	248 460	252 468
11000	TAS TOTAL	FC	KT KG/H	210 384	215 394	222 407	226 413	230 420	234 428	238 435	242 443	245 448	249 455
10500	TAS TOTAL	FC	KT KG/H	208 376	213 385	219 396	223 403	228 411	232 418	235 424	240 434	243 439	247 446
10000	TAS TOTAL	FC	KT KG/H	207 369	211 377	216 386	221 394	226 403	230 410	233 415	237 422	241 430	244 435
9500	TAS TOTAL	FC	KT KG/H	206 364	209 369	214 378	219 386	223 393	228 402	231 407	235 414	239 421	243 428
9000	TAS TOTAL	FC	KT KG/H	205 359	208 363	212 370	217 379	222 387	226 394	229 399	232 404	236 411	240 418
8500	TAS TOTAL	FC	KT KG/H	204 354	207 359	210 363	214 369	219 378	224 387	227 391	230 396	234 403	238 410
8000	TAS TOTAL	FC	KT KG/H	203 350	206 354	209 358	212 363	216 369	221 378	226 386	229 391	232 396	235 400


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**FLIGHT PLANNING
ALL ENGINES OPERATING**
PW118A ENGINES**LONG RANGE CRUISE**

CRUISE CONFIGURATION

NP: 85%

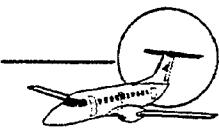
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 12000 FT

				ISA + °C									
				-50	-40	-30	-20	-10	0	10	20	30	40
WEIGHT	TAS	FC	KT										
KG	TOTAL	KG/H	KG/H	219	222	227	231	236	240	244	248	253	256
				403	407	416	423	432	440	448	455	465	470
12000	TAS	FC	KT	214	221	224	229	233	238	242	246	249	254
	TOTAL	KG/H	KG/H	387	400	404	413	420	429	437	445	450	460
11500	TAS	FC	KT	210	218	223	227	231	235	239	243	246	250
	TOTAL	KG/H	KG/H	374	389	397	404	411	418	425	433	438	445
11000	TAS	FC	KT	209	214	220	224	229	233	236	241	244	248
	TOTAL	KG/H	KG/H	367	376	387	393	402	408	414	423	428	435
10500	TAS	FC	KT	207	211	217	222	227	231	234	238	242	245
	TOTAL	KG/H	KG/H	359	366	376	384	393	400	405	412	419	424
10000	TAS	FC	KT	206	210	214	220	224	229	232	236	240	244
	TOTAL	KG/H	KG/H	353	359	366	377	383	391	396	403	410	417
9500	TAS	FC	KT	205	208	212	217	222	226	230	233	237	241
	TOTAL	KG/H	KG/H	348	352	359	367	375	382	388	393	400	407
9000	TAS	FC	KT	204	207	210	215	220	225	228	231	234	239
	TOTAL	KG/H	KG/H	343	347	351	360	368	376	381	385	390	398
8500	TAS	FC	KT	203	206	209	213	217	222	226	229	232	236
	TOTAL	KG/H	KG/H	338	342	346	353	359	367	374	378	383	389
8000	TAS	FC	KT										

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

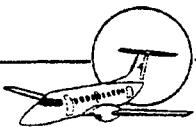
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 13000 FT

WEIGHT KG				ISA + °C									
				-50	-40	-30	-20	-10	0	10	20	30	40
12000	TAS	KT	KG/H	220	223	228	233	238	242	246	250	255	258
	TOTAL	FC	KG/H	395	399	407	416	425	433	440	448	458	463
11500	TAS	KT	KG/H	217	222	226	230	234	239	243	247	252	255
	TOTAL	FC	KG/H	383	391	398	404	411	420	428	435	445	450
11000	TAS	KT	KG/H	212	220	224	228	232	236	241	244	248	253
	TOTAL	FC	KG/H	368	382	388	395	401	408	418	423	430	439
10500	TAS	KT	KG/H	209	215	222	225	230	234	238	242	246	249
	TOTAL	FC	KG/H	357	368	380	384	392	399	406	413	420	425
10000	TAS	KT	KG/H	208	212	219	223	227	232	235	240	243	247
	TOTAL	FC	KG/H	350	357	369	375	382	390	395	404	409	416
9500	TAS	KT	KG/H	206	210	215	221	225	229	233	237	241	244
	TOTAL	FC	KG/H	342	349	357	367	373	380	386	393	400	405
9000	TAS	KT	KG/H	205	209	213	218	223	227	231	234	238	242
	TOTAL	FC	KG/H	337	343	349	357	365	372	378	383	390	396
8500	TAS	KT	KG/H	204	207	211	216	220	225	229	232	235	239
	TOTAL	FC	KG/H	332	336	342	350	356	364	370	375	380	386
8000	TAS	KT	KG/H	204	206	209	213	218	223	227	230	233	237
	TOTAL	FC	KG/H	329	331	335	341	349	357	363	367	372	378


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 14000 FT

			ISA + °C										
			-50	-40	-30	-20	-10	0	10	20	30	40	
WEIGHT		KG											
12000	TAS	KT	220	225	230	235	240	243	247	253	256	259	259
	TOTAL	FC	KG/H	384	393	401	410	419	424	432	443	449	454
11500	TAS	KT	220	222	227	232	237	241	245	249	254	257	257
	TOTAL	FC	KG/H	380	381	389	398	407	413	421	428	438	443
11000	TAS	KT	215	221	224	229	233	238	242	246	251	255	255
	TOTAL	FC	KG/H	364	374	378	386	393	401	416	425	432	
10500	TAS	KT	210	218	223	226	231	235	239	243	247	251	251
	TOTAL	FC	KG/H	349	363	371	375	383	390	397	404	411	417
10000	TAS	KT	208	213	220	224	229	233	237	241	245	248	248
	TOTAL	FC	KG/H	341	349	360	366	374	381	387	394	401	406
9500	TAS	KT	207	211	216	222	226	230	234	238	242	245	245
	TOTAL	FC	KG/H	334	340	349	358	364	370	377	383	390	395
9000	TAS	KT	205	209	213	219	224	228	232	235	239	243	243
	TOTAL	FC	KG/H	327	332	339	348	356	362	368	373	380	386
8500	TAS	KT	205	207	211	217	221	226	229	233	236	240	240
	TOTAL	FC	KG/H	323	325	331	341	347	354	359	365	370	376
8000	TAS	KT	203	207	209	213	219	223	227	230	234	238	238
	TOTAL	FC	KG/H	317	322	324	330	340	345	351	356	362	368

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

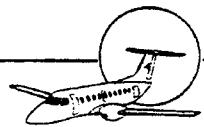
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 15000 FT

WEIGHT KG			ISA + °C										
			-40	-30	-20	-10	-5	0	10	20	30	40	
12000	TAS TOTAL	FC	KT KG/H	227 387	232 395	237 404	241 411	243 414	245 418	250 427	254 435	258 442	261 447
11500	TAS TOTAL	FC	KT KG/H	224 375	229 383	234 392	239 400	241 404	243 407	246 412	252 424	256 431	259 436
11000	TAS TOTAL	FC	KT KG/H	221 364	226 372	231 380	235 386	238 391	240 395	244 402	248 409	253 418	256 423
10500	TAS TOTAL	FC	KT KG/H	220 357	223 361	228 369	232 375	235 380	237 383	241 390	245 397	249 404	253 410
10000	TAS TOTAL	FC	KT KG/H	215 343	222 354	225 358	230 366	232 369	234 372	238 379	242 385	246 392	249 397
9500	TAS TOTAL	FC	KT KG/H	211 331	218 342	223 350	227 355	229 358	231 361	235 368	240 376	243 381	247 387
9000	TAS TOTAL	FC	KT KG/H	209 323	214 331	220 340	224 345	227 350	229 353	233 359	236 364	241 372	244 376
8500	TAS TOTAL	FC	KT KG/H	207 315	212 323	217 330	222 338	224 340	226 343	230 349	234 355	238 362	242 368
8000	TAS TOTAL	FC	KT KG/H	206 310	210 315	214 321	220 330	222 333	224 336	228 342	231 346	235 352	239 358


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**FLIGHT PLANNING
ALL ENGINES OPERATING**
PW118A ENGINES**LONG RANGE CRUISE**

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 16000 FT

WEIGHT KG				ISA + °C									
				-40	-30	-20	-10	-5	0	10	20	30	40
12000	TAS TOTAL	FC	KT KG/H	229 382	234 390	239 398	243 405	245 409	247 412	252 421	256 429	260 436	263 441
11500	TAS TOTAL	FC	KT KG/H	226 370	231 378	236 386	240 393	242 396	244 399	249 408	254 417	257 422	260 427
11000	TAS TOTAL	FC	KT KG/H	222 357	228 366	233 374	237 380	239 384	241 387	245 394	250 403	255 411	258 416
10500	TAS TOTAL	FC	KT KG/H	221 349	225 355	229 361	234 369	237 374	239 377	243 383	246 388	251 397	255 403
10000	TAS TOTAL	FC	KT KG/H	218 339	223 346	227 352	231 357	233 360	235 364	240 372	244 378	247 383	252 391
9500	TAS TOTAL	FC	KT KG/H	212 323	220 336	224 341	228 347	230 350	232 353	237 360	241 367	245 374	248 378
9000	TAS TOTAL	FC	KT KG/H	210 315	215 323	222 333	225 337	228 341	230 344	234 350	238 356	242 363	245 367
8500	TAS TOTAL	FC	KT KG/H	208 307	212 313	218 322	223 329	225 332	227 334	231 340	235 346	239 353	243 358
8000	TAS TOTAL	FC	KT KG/H	207 301	210 305	215 313	220 320	223 324	225 327	229 332	232 337	236 343	240 348

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION
NP: 85%
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

ALTITUDE: 17000 FT

WEIGHT KG			ISA + °C										
			-40	-30	-20	-10	-5	0	10	20	30	40	
12000	TAS	KT	231	236	241	245	247	250	254	258	262	262	262
	TOTAL FC	KG/H	377	385	393	400	403	409	416	423	430	430	431
11500	TAS	KT	228	233	238	242	244	246	251	255	259	263	263
	TOTAL FC	KG/H	365	372	380	387	390	394	402	409	416	423	423
11000	TAS	KT	224	229	235	239	241	243	247	253	256	260	260
	TOTAL FC	KG/H	351	359	368	375	378	381	388	398	403	410	410
10500	TAS	KT	221	226	231	236	238	241	244	248	254	257	257
	TOTAL FC	KG/H	340	348	355	363	366	370	375	382	392	397	397
10000	TAS	KT	220	223	228	232	235	237	241	245	249	254	254
	TOTAL FC	KG/H	333	337	344	350	354	357	364	370	377	385	385
9500	TAS	KT	215	222	225	230	231	234	238	242	246	250	250
	TOTAL FC	KG/H	319	330	333	341	342	346	352	359	365	371	371
9000	TAS	KT	210	217	223	227	229	231	235	239	243	247	247
	TOTAL FC	KG/H	306	316	325	330	333	336	342	348	354	360	360
8500	TAS	KT	209	213	219	224	226	229	232	236	240	244	244
	TOTAL FC	KG/H	299	305	314	321	323	327	332	337	344	349	349
.8000	TAS	KT	207	211	216	221	223	226	230	233	237	241	241
	TOTAL FC	KG/H	292	298	305	311	314	318	324	328	334	339	339


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

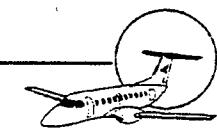
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 18000 FT
**WEIGHT
KG**
ISA + °C

				-40	-30	-20	-10	-5	0	10	20	30	40
12000	TAS	KT	KG/H	233	238	243	248	251	253	257	261	265	259
	TOTAL	FC		372	380	388	397	402	405	412	419	427	418
11500	TAS	KT	KG/H	230	235	240	244	247	249	253	258	262	265
	TOTAL	FC		360	367	375	382	387	390	397	406	413	418
11000	TAS	KT	KG/H	226	231	237	241	243	245	250	254	258	262
	TOTAL	FC		346	354	363	369	372	376	384	391	397	404
10500	TAS	KT	KG/H	223	228	233	238	240	242	246	251	255	259
	TOTAL	FC		335	342	350	357	360	363	370	378	384	391
10000	TAS	KT	KG/H	221	225	230	235	237	239	243	247	252	256
	TOTAL	FC		326	331	338	346	349	352	357	364	372	378
9500	TAS	KT	KG/H	218	222	227	231	233	236	240	244	248	253
	TOTAL	FC		316	321	327	333	336	340	346	352	358	366
9000	TAS	KT	KG/H	212	220	223	228	230	232	237	241	245	248
	TOTAL	FC		301	312	316	323	325	328	335	341	347	352
8500	TAS	KT	KG/H	209	215	221	225	227	230	233	237	242	245
	TOTAL	FC		291	299	308	313	315	319	323	329	337	341
8000	TAS	KT	KG/H	207	211	217	222	224	227	231	234	238	242
	TOTAL	FC		283	289	297	303	306	310	315	319	325	331

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 19000 FT

WEIGHT KG	TAS TOTAL FC	KT KG/H	ISA + °C									
			-40	-30	-20	-10	-5	0	10	20	30	40
12000	TAS TOTAL FC	KT KG/H	235 368	240 375	245 384	251 394	253 397	255 401	259 408	263 415	268 424	257 404
11500	TAS TOTAL FC	KT KG/H	232 355	237 363	242 370	247 379	250 384	252 387	256 393	260 400	264 407	262 406
11000	TAS TOTAL FC	KT KG/H	228 342	234 351	239 358	243 364	245 367	248 372	253 380	256 385	261 394	264 399
10500	TAS TOTAL FC	KT KG/H	225 330	230 337	235 344	240 352	242 355	244 358	248 364	253 372	257 379	261 385
10000	TAS TOTAL FC	KT KG/H	221 317	227 326	232 333	237 340	239 343	241 346	245 352	249 358	254 366	258 372
9500	TAS TOTAL FC	KT KG/H	220 311	223 314	228 320	233 327	235 330	238 335	242 340	245 345	250 353	255 360
9000	TAS TOTAL FC	KT KG/H	215 297	221 305	225 310	229 315	231 318	234 322	238 328	243 335	246 339	251 347
8500	TAS TOTAL FC	KT KG/H	210 284	218 295	223 302	226 305	228 308	230 310	234 316	239 323	243 329	246 333
8000	TAS TOTAL FC	KT KG/H	208 276	212 281	219 291	223 296	225 298	228 302	232 307	236 313	240 318	244 324



FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

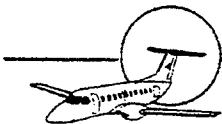
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 20000 FT

				ISA + °C										
				-30	-20	-15	-10	-5	0	10	20	30	40	
WEIGHT	TAS	FC	KT	KG/H	242	248	251	253	256	258	262	266	271	253
KG	TOTAL	FC	KG/H		371	381	386	389	394	398	405	412	421	390
12000	TAS	FC	KT	KG/H	242	248	251	253	256	258	262	266	271	253
	TOTAL	FC	KG/H		371	381	386	389	394	398	405	412	421	390
11500	TAS	FC	KT	KG/H	239	244	247	250	252	254	259	263	267	258
	TOTAL	FC	KG/H		358	366	371	376	379	382	391	398	405	392
11000	TAS	FC	KT	KG/H	236	240	243	245	248	251	255	259	263	267
	TOTAL	FC	KG/H		346	352	356	359	364	369	375	382	389	395
10500	TAS	FC	KT	KG/H	232	237	240	242	244	246	251	255	259	263
	TOTAL	FC	KG/H		332	340	344	347	350	353	361	367	373	380
10000	TAS	FC	KT	KG/H	229	234	236	239	241	243	247	252	256	260
	TOTAL	FC	KG/H		321	328	331	335	338	341	347	355	361	367
9500	TAS	FC	KT	KG/H	225	230	232	235	237	239	243	247	253	256
	TOTAL	FC	KG/H		309	315	318	322	325	328	333	339	348	353
9000	TAS	FC	KT	KG/H	221	226	229	231	233	236	240	244	248	253
	TOTAL	FC	KG/H		297	303	307	310	312	317	322	328	333	341
8500	TAS	FC	KT	KG/H	220	223	225	228	230	232	236	241	245	248
	TOTAL	FC	KG/H		290	293	296	300	302	305	310	317	322	327
8000	TAS	FC	KT	KG/H	214	221	223	225	227	229	233	237	241	245
	TOTAL	FC	KG/H		276	285	288	290	292	295	300	305	310	316

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 21000 FT

WEIGHT KG			ISA + °C										
			-30	-20	-15	-10	-5	0	10	20	30	40	
12000	TAS	KT	245	251	253	256	258	260	264	269	273	-	-
	TOTAL FC	KG/H	369	379	382	387	391	394	401	410	417		
11500	TAS	KT	241	247	250	252	255	257	261	265	270	257	380
	TOTAL FC	KG/H	354	364	369	372	376	380	386	393	402		
11000	TAS	KT	238	243	245	248	251	253	257	262	266	263	382
	TOTAL FC	KG/H	341	349	352	357	361	365	371	379	386		
10500	TAS	KT	234	239	242	244	246	249	254	258	262	266	377
	TOTAL FC	KG/H	328	335	339	342	345	350	357	364	370		
10000	TAS	KT	231	236	238	241	243	245	250	254	258	262	361
	TOTAL FC	KG/H	316	323	326	330	333	336	343	349	355		
9500	TAS	KT	227	232	235	237	239	241	245	250	255	258	347
	TOTAL FC	KG/H	304	310	314	317	320	322	328	335	343		
9000	TAS	KT	223	228	231	233	236	238	242	246	251	255	335
	TOTAL FC	KG/H	292	298	302	305	309	311	316	322	329		
8500	TAS	KT	221	224	227	229	231	233	239	243	246	251	322
	TOTAL FC	KG/H	283	287	290	293	295	298	306	311	315		
8000	TAS	KT	216	222	224	226	228	230	234	239	243	246	308
	TOTAL FC	KG/H	271	279	281	283	285	288	292	299	304		


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**FLIGHT PLANNING
ALL ENGINES OPERATING**
PW118A ENGINES**LONG RANGE CRUISE**

CRUISE CONFIGURATION

NP: 85%

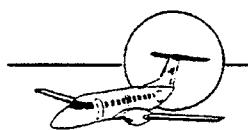
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 22000 FT

WEIGHT KG			ISA + °C										
			-30	-20	-15	-10	-5	0	10	20	30	40	
12000	TAS TOTAL	FC	KT KG/H	248 368	253 375	255 379	257 382	260 387	262 391	267 399	272 408	269 405	-
11500	TAS TOTAL	FC	KT KG/H	243 351	250 362	252 365	255 369	257 373	259 376	263 383	268 391	273 400	252 367
11000	TAS TOTAL	FC	KT KG/H	240 338	245 345	248 350	251 354	254 359	256 362	260 368	264 375	269 383	259 370
10500	TAS TOTAL	FC	KT KG/H	236 324	242 332	244 335	247 340	250 344	253 349	256 353	260 359	264 366	268 372
10000	TAS TOTAL	FC	KT KG/H	233 312	238 319	240 321	242 324	245 328	247 331	253 340	257 346	261 352	265 358
9500	TAS TOTAL	FC	KT KG/H	229 300	234 306	237 310	239 312	241 315	243 318	248 325	253 332	257 338	261 343
9000	TAS TOTAL	FC	KT KG/H	225 287	230 293	232 296	235 300	237 302	240 306	244 311	248 317	253 324	257 329
8500	TAS TOTAL	FC	KT KG/H	222 277	226 282	229 285	231 288	233 290	236 294	240 299	244 304	248 310	253 316
8000	TAS TOTAL	FC	KT KG/H	220 269	222 271	225 274	227 276	229 279	231 281	236 287	240 292	245 299	249 304

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 23000 FT

WEIGHT KG			ISA + °C										
			-30	-20	-15	-10	-5	0	10	20	30	40	
12000	TAS TOTAL	FC	KT KG/H	250 364	255 372	258 377	260 381	263 386	266 391	270 398	275 407	265 391	- -
11500	TAS TOTAL	FC	KT KG/H	246 349	251 357	254 361	256 364	259 369	260 371	266 381	270 388	272 393	- -
11000	TAS TOTAL	FC	KT KG/H	242 334	248 343	251 348	254 352	256 355	259 360	262 365	267 373	272 381	256 357
10500	TAS TOTAL	FC	KT KG/H	238 320	243 327	247 333	250 337	252 340	255 344	259 351	263 357	268 365	264 360
10000	TAS TOTAL	FC	KT KG/H	235 308	240 315	243 319	245 322	248 326	251 330	255 336	259 342	263 348	268 355
9500	TAS TOTAL	FC	KT KG/H	231 295	236 301	239 305	241 308	243 311	245 313	251 322	255 327	259 333	263 339
9000	TAS TOTAL	FC	KT KG/H	227 283	232 289	235 293	238 297	240 299	242 302	246 307	251 314	255 319	259 324
8500	TAS TOTAL	FC	KT KG/H	223 271	228 277	230 279	233 283	236 287	238 289	242 294	246 299	251 306	256 312
8000	TAS TOTAL	FC	KT KG/H	220 262	224 266	227 269	229 272	231 274	234 277	238 282	242 287	246 292	251 299


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**FLIGHT PLANNING
ALL ENGINES OPERATING**
PW118A ENGINES**LONG RANGE CRUISE**

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 24000 FT

WEIGHT KG			ISA + °C										
			-30	-20	-15	-10	-5	0	10	20	30	40	
12000	TAS TOTAL	FC	KT KG/H	251 360	257 370	259 373	262 379	266 385	270 391	274 399	279 408	258 378	- -
11500	TAS TOTAL	FC	KT KG/H	249 348	254 355	257 360	259 363	261 367	265 373	269 380	274 389	266 379	- -
11000	TAS TOTAL	FC	KT KG/H	245 333	251 341	253 344	255 347	258 352	260 355	265 363	270 371	275 379	- -
10500	TAS TOTAL	FC	KT KG/H	241 318	247 327	250 331	252 334	255 338	258 342	261 347	265 353	270 361	261 347
10000	TAS TOTAL	FC	KT KG/H	237 304	242 311	245 315	248 319	251 323	254 327	258 333	261 338	266 345	268 349
9500	TAS TOTAL	FC	KT KG/H	233 291	239 299	241 301	244 305	246 308	249 312	253 317	258 324	262 330	266 336
9000	TAS TOTAL	FC	KT KG/H	229 279	235 286	237 288	239 291	242 295	244 297	249 304	253 309	258 316	262 321
8500	TAS TOTAL	FC	KT KG/H	225 267	230 273	233 276	236 280	238 282	240 285	244 290	248 294	253 301	257 306
8000	TAS TOTAL	FC	KT KG/H	221 256	226 261	228 263	231 267	233 269	236 273	240 277	245 283	248 287	253 293

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

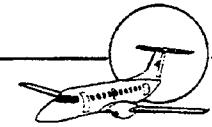
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 25000 FT

WEIGHT KG	TAS TOTAL FC	KT KG/H	ISA + °C									
			-20	-15	-10	-5	0	5	10	20	30	40
12000	TAS TOTAL FC	KT KG/H	260 370	263 375	265 380	267 385	271 390	275 395	277 399	279 404	-	-
11500	TAS TOTAL FC	KT KG/H	256 353	259 357	261 361	265 367	267 371	270 376	272 379	278 389	263 367	-
11000	TAS TOTAL FC	KT KG/H	253 338	255 341	258 346	260 349	263 354	265 357	268 362	273 370	271 368	-
10500	TAS TOTAL FC	KT KG/H	250 325	252 327	255 332	257 335	259 338	262 342	264 345	269 353	273 359	255 334
10000	TAS TOTAL FC	KT KG/H	245 309	248 313	251 317	253 320	256 324	258 327	260 330	264 336	269 343	264 338
9500	TAS TOTAL FC	KT KG/H	241 295	243 298	246 302	249 306	252 309	255 313	256 315	260 320	264 326	269 333
9000	TAS TOTAL FC	KT KG/H	237 282	239 284	242 288	244 291	247 295	249 297	252 301	256 306	260 311	264 317
8500	TAS TOTAL FC	KT KG/H	233 270	235 272	238 275	240 278	242 280	244 283	246 285	252 293	256 298	260 303
8000	TAS TOTAL FC	KT KG/H	228 257	231 260	233 263	236 266	238 268	240 270	243 274	246 277	252 285	256 290


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**FLIGHT PLANNING
ALL ENGINES OPERATING**
PW118A ENGINES**LONG RANGE CRUISE**

CRUISE CONFIGURATION

NP: 85%

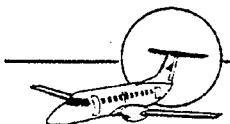
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 26000 FT

				ISA + °C										
				-20	-15	-10	-5	0	5	10	20	30	40	
WEIGHT	TAS	FC	KT	KG/H	263	266	269	272	275	278	281	274	-	-
KG	TOTAL	FC	KG/H		370	375	380	385	391	395	401	392	-	-
12000	TAS	FC	KT	KG/H	263	266	269	272	275	278	281	274	-	-
	TOTAL	FC	KG/H		370	375	380	385	391	395	401	392	-	-
11500	TAS	FC	KT	KG/H	259	262	265	267	270	273	276	281	-	-
	TOTAL	FC	KG/H		352	357	362	365	371	375	380	389	-	-
11000	TAS	FC	KT	KG/H	255	258	260	263	266	269	271	276	268	-
	TOTAL	FC	KG/H		336	340	344	348	353	358	361	369	357	-
10500	TAS	FC	KT	KG/H	251	254	256	259	262	264	266	271	277	-
	TOTAL	FC	KG/H		320	325	328	332	337	340	343	350	360	-
10000	TAS	FC	KT	KG/H	248	251	254	256	258	260	262	267	272	260
	TOTAL	FC	KG/H		307	311	315	318	321	324	327	334	341	325
9500	TAS	FC	KT	KG/H	243	246	249	252	254	256	259	263	268	268
	TOTAL	FC	KG/H		292	296	300	303	306	309	313	318	325	326
9000	TAS	FC	KT	KG/H	239	242	244	247	250	253	254	259	263	268
	TOTAL	FC	KG/H		278	282	284	288	292	296	297	304	309	316
8500	TAS	FC	KT	KG/H	235	237	239	242	244	247	250	254	259	263
	TOTAL	FC	KG/H		266	268	270	274	276	280	284	288	295	300
8000	TAS	FC	KT	KG/H	230	233	236	238	240	242	245	249	253	258
	TOTAL	FC	KG/H		253	256	259	262	264	266	270	274	279	285

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

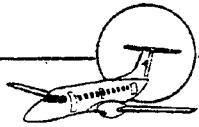
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 27000 FT

WEIGHT KG	TAS TOTAL FC	KT KG/H	ISA + °C									
			-20	-15	-10	-5	0	5	10	20	30	40
12000	TAS TOTAL FC	KT KG/H	265 369	269 375	273 381	276 387	279 393	283 399	287 406	-	-	-
11500	TAS TOTAL FC	KT KG/H	262 352	265 357	268 362	272 368	274 373	278 378	280 382	277 380	-	-
11000	TAS TOTAL FC	KT KG/H	257 334	260 339	263 343	266 348	269 353	272 357	275 362	280 370	261 344	-
10500	TAS TOTAL FC	KT KG/H	254 319	257 324	260 328	262 331	264 334	267 339	270 343	276 352	270 346	-
10000	TAS TOTAL FC	KT KG/H	250 304	252 307	255 311	257 314	260 318	263 322	265 325	270 333	275 340	253 313
9500	TAS TOTAL FC	KT KG/H	246 290	250 295	252 298	255 302	257 304	259 306	261 309	265 315	270 322	262 314
9000	TAS TOTAL FC	KT KG/H	241 275	244 279	247 282	250 286	252 289	255 292	258 296	261 300	265 306	270 312
8500	TAS TOTAL FC	KT KG/H	237 262	240 266	242 268	245 271	248 275	251 279	253 281	257 286	260 290	265 296
8000	TAS TOTAL FC	KT KG/H	232 249	235 252	237 254	240 258	242 260	244 262	247 266	252 272	256 276	260 281


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**FLIGHT PLANNING
ALL ENGINES OPERATING**
PW118A ENGINES**LONG RANGE CRUISE**

CRUISE CONFIGURATION

NP: 85%

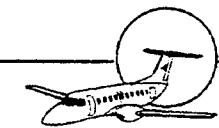
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 28000 FT

				ISA + °C																			
				-20	-15	-10	-5	0	5	10	20	30	40										
WEIGHT	KG			TAS	FC	KT	KG/H	270	273	276	280	284	288	285	-	-	-						
TOTAL				270	373	273	378	276	383	280	389	284	395	288	399	-	-						
12000	TAS	FC	KT	270	373	273	378	276	383	280	389	284	395	288	399	-	-						
11500	TAS	FC	KT	264	351	268	358	271	363	274	367	278	374	282	380	286	387	271	366				
11000	TAS	FC	KT	261	336	264	340	267	345	270	349	273	354	276	359	279	363	280	367				
10500	TAS	FC	KT	256	317	259	322	262	326	265	331	268	335	271	340	274	344	279	352	266	334		
10000	TAS	FC	KT	253	303	256	307	258	310	261	314	264	319	265	320	269	326	274	333	275	336		
9500	TAS	FC	KT	248	287	251	291	253	294	256	297	258	300	261	304	264	308	269	315	274	322	260	304
9000	TAS	FC	KT	244	274	248	278	250	281	253	284	255	287	258	290	259	292	264	298	269	305	269	306
8500	TAS	FC	KT	239	259	241	261	244	265	247	268	250	272	253	275	256	279	259	283	264	289	269	295
8000	TAS	FC	KT	235	247	238	250	240	252	243	255	245	258	248	261	251	264	254	268	259	274	264	280

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 29000 FT

WEIGHT KG	TAS TOTAL FC	KT KG/H	ISA + °C									
			-20	-15	-10	-5	0	5	10	20	30	40
12000	TAS TOTAL FC	KT KG/H	272 373	276 379	280 386	283 865	286 397	288 399	278 386	-	-	-
11500	TAS TOTAL FC	KT KG/H	269 355	272 360	275 365	279 371	282 376	287 384	287 385	-	-	-
11000	TAS TOTAL FC	KT KG/H	263 334	266 339	270 345	273 350	276 355	280 360	284 367	275 355	-	-
10500	TAS TOTAL FC	KT KG/H	259 318	263 323	266 327	268 330	271 335	274 340	277 344	285 356	-	-
10000	TAS TOTAL FC	KT KG/H	255 301	257 304	260 308	263 312	267 318	270 322	271 324	278 334	270 324	-
9500	TAS TOTAL FC	KT KG/H	251 286	254 290	257 294	259 296	262 301	263 303	267 308	272 314	277 321	-
9000	TAS TOTAL FC	KT KG/H	247 272	250 275	252 278	254 280	257 284	259 286	263 292	266 296	271 302	265 295
8500	TAS TOTAL FC	KT KG/H	242 257	245 261	248 264	251 268	253 270	256 273	258 276	262 281	266 286	271 292
8000	TAS TOTAL FC	KT KG/H	237 243	239 245	242 249	244 251	248 255	251 259	253 261	258 267	261 270	266 276



FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

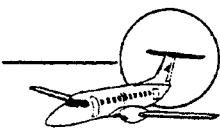
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 30000 FT

WEIGHT KG			ISA + °C									
			-10	-5	0	5	10	15	20	25	30	40
12000	TAS	KT	284	288	291	282	-	-	-	-	-	-
	TOTAL	FC	KG/H	389	399	400	389	-	-	-	-	-
11500	TAS	KT	279	283	287	290	280	-	-	-	-	-
	TOTAL	FC	KG/H	368	374	380	385	374	-	-	-	-
11000	TAS	KT	274	278	281	285	289	281	-	-	-	-
	TOTAL	FC	KG/H	347	353	358	364	370	360	-	-	-
10500	TAS	KT	268	272	275	279	282	286	277	-	-	-
	TOTAL	FC	KG/H	326	333	337	343	347	353	343	-	-
10000	TAS	KT	264	267	269	272	277	279	282	275	-	-
	TOTAL	FC	KG/H	309	313	317	321	328	331	335	-	-
9500	TAS	KT	259	262	265	268	270	274	277	279	273	-
	TOTAL	FC	KG/H	292	296	300	304	307	312	316	319	313
9000	TAS	KT	254	257	260	263	265	268	271	273	276	258
	TOTAL	FC	KG/H	276	279	283	287	290	293	297	300	304
8500	TAS	KT	250	253	255	257	260	262	265	268	270	270
	TOTAL	FC	KG/H	261	265	267	269	273	275	279	283	285
8000	TAS	KT	245	248	251	254	256	258	260	262	264	270
	TOTAL	FC	KG/H	247	250	253	257	259	261	263	266	268

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 31000 FT

WEIGHT KG	TAS TOTAL FC	KT KG/H	ISA + °C									
			-10	-5	0	5	10	15	20	25	30	40
12000	TAS TOTAL FC	KT KG/H	288 390	287 396	285 392	-	-	-	-	-	-	-
11500	TAS TOTAL FC	KT KG/H	283 371	287 377	288 379	282 373	-	-	-	-	-	-
11000	TAS TOTAL FC	KT KG/H	278 350	282 356	285 361	288 365	282 358	-	-	-	-	-
10500	TAS TOTAL FC	KT KG/H	272 329	276 334	280 340	284 345	287 350	283 346	269 330	-	-	-
10000	TAS TOTAL FC	KT KG/H	267 310	270 314	274 319	278 325	279 330	285 335	281 331	269 316	-	-
9500	TAS TOTAL FC	KT KG/H	262 292	265 296	268 299	271 304	275 309	278 313	280 316	280 317	268 302	-
9000	TAS TOTAL FC	KT KG/H	257 275	260 278	263 282	266 286	268 289	271 293	274 296	277 300	278 302	-
8500	TAS TOTAL FC	KT KG/H	252 259	255 262	258 266	260 268	263 272	266 276	268 278	270 281	273 284	266 275
8000	TAS TOTAL FC	KT KG/H	248 245	251 248	253 251	256 254	258 256	261 259	263 262	265 264	267 267	272 272


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 32000 FT

WEIGHT KG				ISA + °C									
				-10	-5	0	5	10	15	20	25	30	40
12000	TAS	KT	KG/H	288	283	-	-	-	-	-	-	-	-
	TOTAL	FC	KG/H	399	385	-	-	-	-	-	-	-	-
11500	TAS	KT	KG/H	284	286	284	-	-	-	-	-	-	-
	TOTAL	FC	KG/H	370	374	373	-	-	-	-	-	-	-
11000	TAS	KT	KG/H	281	286	286	285	-	-	-	-	-	-
	TOTAL	FC	KG/H	352	359	359	359	-	-	-	-	-	-
10500	TAS	KT	KG/H	277	281	284	286	286	275	-	-	-	-
	TOTAL	FC	KG/H	332	338	343	346	346	333	-	-	-	-
10000	TAS	KT	KG/H	271	274	278	281	286	286	275	-	-	-
	TOTAL	FC	KG/H	311	316	321	326	332	333	320	-	-	-
9500	TAS	KT	KG/H	265	268	272	275	278	282	286	274	-	-
	TOTAL	FC	KG/H	292	296	300	305	309	314	320	306	-	-
9000	TAS	KT	KG/H	260	263	266	269	272	275	278	281	271	-
	TOTAL	FC	KG/H	274	278	282	286	290	293	297	301	291	-
8500	TAS	KT	KG/H	255	258	260	263	266	268	271	274	277	257
	TOTAL	FC	KG/H	258	261	264	268	271	274	277	281	285	264
8000	TAS	KT	KG/H	250	253	256	258	261	263	265	268	271	269
	TOTAL	FC	KG/H	243	246	249	251	255	257	260	263	266	265

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

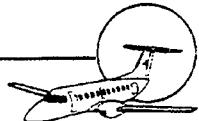
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 5000 FT

WEIGHT KG	TAS TOTAL FC	KT KG/H	ISA + °C									
			-60	-40	-30	-20	-10	0	10	20	30	40
12000	TAS TOTAL FC	KT KG/H	248 621	255 629	258 633	262 637	265 641	267 645	271 649	274 653	274 646	261 591
11500	TAS TOTAL FC	KT KG/H	248 621	256 629	259 633	262 637	265 641	268 645	272 649	274 653	274 646	262 591
11000	TAS TOTAL FC	KT KG/H	249 621	256 629	259 633	262 637	265 641	268 645	272 649	274 653	275 646	262 591
10500	TAS TOTAL FC	KT KG/H	249 621	256 629	260 633	263 637	266 641	268 645	272 649	275 653	275 646	264 592
10000	TAS TOTAL FC	KT KG/H	249 621	256 629	260 633	263 637	266 641	269 645	272 649	275 653	275 646	264 592
9500	TAS TOTAL FC	KT KG/H	249 621	256 629	260 633	263 637	266 641	269 645	272 649	275 653	275 646	264 592
9000	TAS TOTAL FC	KT KG/H	249 621	256 629	260 633	263 637	266 641	269 645	272 649	275 653	275 646	265 592
8500	TAS TOTAL FC	KT KG/H	249 621	256 629	260 633	263 637	266 641	270 645	272 649	275 653	276 646	265 592
8000	TAS TOTAL FC	KT KG/H	249 621	256 629	259 633	263 637	267 641	269 645	272 649	275 653	276 646	266 592


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 6000 FT

				ISA + °C									
				-60	-40	-30	-20	-10	0	10	20	30	40
WEIGHT		KG											
12000	TAS	KT	KG/H	251	258	261	265	268	270	273	276	275	262
	TOTAL	FC	KG/H	614	622	625	629	633	637	640	644	630	577
11500	TAS	KT	KG/H	251	258	262	265	268	271	274	276	275	262
	TOTAL	FC	KG/H	614	622	625	629	633	637	640	644	630	577
11000	TAS	KT	KG/H	251	259	262	265	268	271	274	276	276	264
	TOTAL	FC	KG/H	614	622	625	629	633	637	640	644	630	577
10500	TAS	KT	KG/H	252	259	262	266	269	272	274	277	276	264
	TOTAL	FC	KG/H	614	622	625	629	633	637	640	644	631	577
10000	TAS	KT	KG/H	252	259	263	266	269	272	274	277	277	266
	TOTAL	FC	KG/H	614	622	625	629	633	637	640	644	631	578
9500	TAS	KT	KG/H	252	259	263	266	269	272	275	278	277	266
	TOTAL	FC	KG/H	614	622	625	629	633	637	640	644	631	578
9000	TAS	KT	KG/H	252	259	263	266	269	272	274	278	277	266
	TOTAL	FC	KG/H	614	622	625	629	633	637	640	644	631	578
8500	TAS	KT	KG/H	252	259	262	266	269	272	275	278	277	267
	TOTAL	FC	KG/H	614	622	625	629	633	637	640	644	631	578
8000	TAS	KT	KG/H	251	259	262	265	269	271	275	278	277	266
	TOTAL	FC	KG/H	614	622	625	629	633	637	640	644	631	578

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

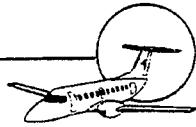
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 7000 FT

WEIGHT KG	TAS TOTAL FC	KT KG/H	ISA + °C									
			-60	-40	-30	-20	-10	0	10	20	30	40
12000	TAS TOTAL FC	KT KG/H	253 607	261 614	264 618	267 621	270 625	273 628	276 632	279 635	276 615	263 563
11500	TAS TOTAL FC	KT KG/H	254 607	261 614	265 618	267 621	270 625	274 628	277 632	279 635	276 615	264 563
11000	TAS TOTAL FC	KT KG/H	254 607	262 614	265 618	267 621	270 625	274 628	277 632	280 635	278 616	265 563
10500	TAS TOTAL FC	KT KG/H	253 607	261 614	264 618	268 621	271 625	275 628	277 632	280 635	278 616	266 564
10000	TAS TOTAL FC	KT KG/H	253 607	261 614	264 618	268 621	271 625	275 628	278 632	280 635	278 616	266 564
9500	TAS TOTAL FC	KT KG/H	253 607	261 614	265 618	268 621	271 625	275 628	278 632	280 635	278 616	268 564
9000	TAS TOTAL FC	KT KG/H	253 607	261 614	265 618	268 621	272 625	275 628	278 632	280 635	278 616	268 564
8500	TAS TOTAL FC	KT KG/H	253 607	261 614	265 618	269 621	272 625	275 628	278 632	280 635	279 616	269 564
8000	TAS TOTAL FC	KT KG/H	254 607	262 614	265 618	268 621	272 625	274 628	277 632	281 635	279 616	268 564


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**FLIGHT PLANNING
ALL ENGINES OPERATING**
PW118A ENGINES**MAXIMUM SPEED CRUISE**

CRUISE CONFIGURATION

NP: 85%

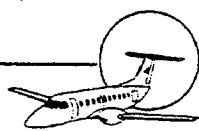
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 8000 FT

				ISA + °C																
				-60	-40	-30	-20	-10	0	10	20	30	40							
WEIGHT	KG			TAS	KT	KG/H	TOTAL	FC	KT	KG/H	256	263	266	269	273	276	278	281	276	263
											600	607	611	614	617	621	624	628	600	549
12000	TAS	KT	KG/H	256	263	266	269	273	276	278	281	276	263	263	263	263	263	263	263	263
	TOTAL	FC	KG/H	600	607	611	614	617	621	624	628	600	549							
11500	TAS	KT	KG/H	256	263	267	270	273	276	279	281	277	265	265	265	265	265	265	265	265
	TOTAL	FC	KG/H	600	607	611	614	617	621	624	628	601	550							
11000	TAS	KT	KG/H	256	263	267	270	273	276	279	282	279	267	267	267	267	267	267	267	267
	TOTAL	FC	KG/H	600	607	611	614	617	621	624	628	601	550							
10500	TAS	KT	KG/H	256	264	267	271	274	277	280	282	279	267	267	267	267	267	267	267	267
	TOTAL	FC	KG/H	600	607	611	614	617	621	624	628	601	550							
10000	TAS	KT	KG/H	256	264	267	271	274	277	280	283	279	268	268	268	268	268	268	268	268
	TOTAL	FC	KG/H	600	607	611	614	617	621	624	628	601	550							
9500	TAS	KT	KG/H	256	264	268	271	274	277	280	284	279	268	268	268	268	268	268	268	268
	TOTAL	FC	KG/H	600	607	611	614	617	621	624	628	601	551							
9000	TAS	KT	KG/H	256	264	267	271	274	277	281	284	280	270	270	270	270	270	270	270	270
	TOTAL	FC	KG/H	600	607	611	614	617	621	624	628	602	551							
8500	TAS	KT	KG/H	256	264	267	271	274	278	281	283	280	269	269	269	269	269	269	269	269
	TOTAL	FC	KG/H	600	607	611	614	617	621	624	628	602	551							
8000	TAS	KT	KG/H	256	264	267	270	275	278	280	283	280	270	270	270	270	270	270	270	270
	TOTAL	FC	KG/H	600	607	611	614	617	621	624	628	602	551							

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

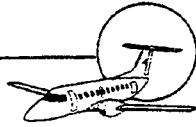
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 9000 FT

WEIGHT KG				ISA + °C									
				-60	-40	-30	-20	-10	0	10	20	30	40
12000	TAS	KT	258	266	269	273	276	279	282	284	277	265	265
	TOTAL	FC	594	601	604	607	610	613	617	621	586	536	536
11500	TAS	KT	258	266	270	273	276	279	282	285	279	266	266
	TOTAL	FC	594	601	604	607	610	613	617	621	586	536	536
11000	TAS	KT	258	266	270	273	277	280	282	285	279	267	267
	TOTAL	FC	594	601	604	607	610	613	617	621	587	536	536
10500	TAS	KT	259	267	270	274	277	280	283	285	280	269	269
	TOTAL	FC	594	601	604	607	610	613	617	621	587	537	537
10000	TAS	KT	259	267	270	274	277	280	283	286	280	269	269
	TOTAL	FC	594	601	604	607	610	613	617	621	587	537	537
9500	TAS	KT	259	267	271	274	277	280	283	286	281	270	270
	TOTAL	FC	594	601	604	607	610	613	617	621	587	537	537
9000	TAS	KT	259	267	271	274	277	280	283	287	281	270	270
	TOTAL	FC	594	601	604	607	610	613	617	621	587	537	537
8500	TAS	KT	259	267	270	274	277	280	283	287	281	271	271
	TOTAL	FC	594	601	604	607	610	613	617	621	587	537	537
8000	TAS	KT	259	266	270	274	277	280	284	286	282	271	271
	TOTAL	FC	594	601	604	607	610	613	617	621	587	537	537


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 10000 FT

				ISA + °C									
				-50	-40	-30	-20	-10	0	10	20	30	40
WEIGHT	KG			TAS									
	TOTAL	FC	KT	KG/H	265	268	271	275	278	281	284	286	278
12000				592	595	598	601	604	607	609	613	571	265
11500				592	265	268	272	275	278	281	284	287	280
11000				592	265	268	272	275	279	282	285	287	280
10500				592	266	269	272	276	279	282	285	289	281
10000				592	266	269	272	276	279	282	285	289	282
9500				592	265	269	273	276	279	282	285	289	282
9000				592	266	269	273	276	279	282	286	289	282
8500				592	266	270	273	277	280	283	286	289	283
8000				592	266	269	273	277	280	283	286	290	283

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 11000 FT

WEIGHT KG			ISA + °C										
			-50	-40	-30	-20	-10	0	10	20	30	40	
12000	TAS TOTAL	FC	KT KG/H	266 586	270 589	274 592	278 595	281 597	283 600	286 603	289 604	279 557	265 508
11500	TAS TOTAL	FC	KT KG/H	267 586	271 589	275 592	278 595	282 597	284 600	286 603	289 604	280 557	267 509
11000	TAS TOTAL	FC	KT KG/H	267 586	271 589	275 592	279 595	282 597	285 600	288 603	290 604	281 558	269 509
10500	TAS TOTAL	FC	KT KG/H	268 586	272 589	275 592	279 595	282 597	285 600	288 603	291 604	282 558	270 510
10000	TAS TOTAL	FC	KT KG/H	268 586	272 589	276 592	279 595	282 597	286 600	289 603	291 604	283 558	272 510
9500	TAS TOTAL	FC	KT KG/H	268 586	272 589	276 592	279 595	283 597	286 600	289 603	291 604	283 558	272 510
9000	TAS TOTAL	FC	KT KG/H	268 586	272 589	276 592	279 595	283 597	286 600	289 603	291 604	284 559	273 510
8500	TAS TOTAL	FC	KT KG/H	268 586	272 589	275 592	279 595	282 597	286 600	289 603	291 604	284 559	274 511
8000	TAS TOTAL	FC	KT KG/H	267 586	271 589	275 592	279 595	282 597	285 600	289 603	292 604	284 559	274 510


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 12000 FT

WEIGHT KG			ISA + °C										
			-50	-40	-30	-20	-10	0	10	20	30	40	
12000	TAS TOTAL	FC	KT KG/H	269 581	274 584	276 586	280 589	283 591	286 594	289 597	290 592	280 543	266 495
11500	TAS TOTAL	FC	KT KG/H	270 581	274 584	277 586	280 589	284 591	287 594	290 597	292 592	281 543	268 495
11000	TAS TOTAL	FC	KT KG/H	270 581	274 584	277 586	281 589	284 591	287 594	290 597	292 592	282 543	269 496
10500	TAS TOTAL	FC	KT KG/H	271 581	275 584	279 586	281 589	284 591	288 594	291 597	292 592	283 544	271 496
10000	TAS TOTAL	FC	KT KG/H	271 581	275 584	279 586	281 589	285 591	288 594	291 597	293 592	284 544	273 497
9500	TAS TOTAL	FC	KT KG/H	271 581	275 584	279 586	282 589	285 591	288 594	291 597	294 593	284 544	274 497
9000	TAS TOTAL	FC	KT KG/H	271 581	275 584	279 586	282 589	286 591	289 594	292 597	294 593	285 544	274 497
8500	TAS TOTAL	FC	KT KG/H	271 581	275 584	279 586	282 589	286 591	289 594	292 597	294 593	285 544	275 497
8000	TAS TOTAL	FC	KT KG/H	270 581	275 584	278 586	282 589	285 591	289 594	292 597	293 593	285 544	276 498

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 13000 FT

WEIGHT KG			ISA + °C									
			-50	-40	-30	-20	-10	0	10	20	30	40
12000	TAS	KT	271	276	279	283	285	289	292	291	280	265
	TOTAL	FC	KG/H	577	579	581	584	586	588	591	577	482
11500	TAS	KT	272	276	280	284	287	289	292	291	281	268
	TOTAL	FC	KG/H	577	579	581	584	586	588	590	577	482
11000	TAS	KT	272	276	280	284	288	290	293	293	282	270
	TOTAL	FC	KG/H	577	579	581	584	586	588	590	578	483
10500	TAS	KT	273	277	281	284	288	291	294	293	284	272
	TOTAL	FC	KG/H	577	579	581	584	586	588	590	578	483
10000	TAS	KT	273	277	281	285	288	291	294	294	285	273
	TOTAL	FC	KG/H	577	579	581	584	586	588	590	578	484
9500	TAS	KT	273	277	281	285	288	291	295	295	285	275
	TOTAL	FC	KG/H	577	579	581	584	586	588	590	578	484
9000	TAS	KT	273	277	281	285	288	291	294	295	286	276
	TOTAL	FC	KG/H	577	579	581	584	586	588	590	578	484
8500	TAS	KT	274	278	282	284	288	291	294	295	286	276
	TOTAL	FC	KG/H	577	579	581	584	586	588	590	578	484
8000	TAS	KT	274	278	282	285	289	292	295	296	287	277
	TOTAL	FC	KG/H	577	579	581	584	586	588	590	579	484


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

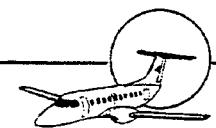
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 14000 FT

WEIGHT KG				ISA + °C									
				-50	-40	-30	-20	-10	0	10	20	30	40
12000	TAS	KT	KG/H	275	279	282	285	289	292	295	291	281	266
	TOTAL	FC	KG/H	572	574	577	579	581	583	586	560	514	469
11500	TAS	KT	KG/H	275	279	282	286	289	293	296	292	281	268
	TOTAL	FC	KG/H	572	574	577	579	581	583	586	561	514	469
11000	TAS	KT	KG/H	275	280	284	286	290	293	296	293	283	271
	TOTAL	FC	KG/H	572	574	577	579	581	583	586	561	514	470
10500	TAS	KT	KG/H	276	280	284	287	290	293	297	294	284	272
	TOTAL	FC	KG/H	572	574	577	579	581	583	586	562	515	470
10000	TAS	KT	KG/H	276	280	284	287	290	294	297	295	286	274
	TOTAL	FC	KG/H	572	574	577	579	581	583	586	562	515	471
9500	TAS	KT	KG/H	276	280	284	288	290	294	298	295	286	275
	TOTAL	FC	KG/H	572	574	577	579	581	583	586	562	516	471
9000	TAS	KT	KG/H	276	280	284	288	292	295	298	296	287	277
	TOTAL	FC	KG/H	572	574	577	579	581	583	586	562	516	471
8500	TAS	KT	KG/H	276	280	284	288	291	295	298	296	287	278
	TOTAL	FC	KG/H	572	574	577	579	581	583	586	562	516	472
8000	TAS	KT	KG/H	277	280	284	288	291	294	298	296	288	277
	TOTAL	FC	KG/H	572	574	577	579	581	583	586	562	516	472

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

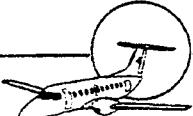
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 15000 FT

WEIGHT KG			ISA + °C									
			-40	-30	-20	-10	-5	0	10	20	30	40
12000	TAS	KT	281	285	288	291	293	294	298	292	280	265
	TOTAL	FC	570	572	574	576	577	578	582	545	499	456
11500	TAS	KT	281	285	289	292	293	295	298	292	282	268
	TOTAL	FC	570	572	574	576	577	578	582	546	500	456
11000	TAS	KT	282	286	290	292	294	295	298	294	284	270
	TOTAL	FC	570	572	574	576	577	578	582	546	500	457
10500	TAS	KT	282	286	290	294	295	297	300	294	285	273
	TOTAL	FC	570	572	574	576	577	578	582	546	501	458
10000	TAS	KT	282	286	290	294	296	297	300	296	286	275
	TOTAL	FC	570	572	574	576	577	578	582	547	501	458
9500	TAS	KT	282	286	290	294	296	297	301	296	287	276
	TOTAL	FC	570	572	574	576	577	578	582	547	502	458
9000	TAS	KT	283	286	290	294	296	297	302	296	288	277
	TOTAL	FC	570	572	574	576	577	578	582	547	502	459
8500	TAS	KT	283	287	291	294	295	297	302	297	288	279
	TOTAL	FC	570	572	574	576	577	578	582	547	502	459
8000	TAS	KT	283	287	291	295	296	298	301	297	289	279
	TOTAL	FC	570	572	574	576	577	578	582	547	502	459

**FLIGHT PLANNING****ALL ENGINES OPERATING****PW118A ENGINES****MAXIMUM SPEED CRUISE**

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 16000 FT

WEIGHT KG			ISA + °C										
			-40	-30	-20	-10	-5	0	10	20	30	40	
12000	TAS TOTAL	FC	KT KG/H	284 567	287 569	291 570	295 572	295 573	297 574	300 576	291 530	280 485	264 443
11500	TAS TOTAL	FC	KT KG/H	285 567	288 569	292 570	295 572	297 573	299 574	302 576	293 531	281 486	268 444
11000	TAS TOTAL	FC	KT KG/H	285 567	288 569	292 570	296 572	297 573	299 574	302 576	294 531	283 486	271 445
10500	TAS TOTAL	FC	KT KG/H	285 567	290 569	292 570	296 572	298 573	299 574	303 576	295 532	285 487	274 445
10000	TAS TOTAL	FC	KT KG/H	286 567	290 569	294 570	296 572	298 573	300 574	303 576	296 532	286 487	275 446
9500	TAS TOTAL	FC	KT KG/H	286 567	290 569	294 570	296 572	299 573	300 574	304 576	297 532	288 488	277 446
9000	TAS TOTAL	FC	KT KG/H	286 567	290 569	294 570	297 572	299 573	301 574	304 576	297 532	289 488	278 446
8500	TAS TOTAL	FC	KT KG/H	286 567	290 569	294 570	297 572	299 573	301 574	304 576	298 533	289 488	279 447
8000	TAS TOTAL	FC	KT KG/H	286 567	289 569	293 570	297 572	299 573	301 574	305 576	298 533	290 489	280 447

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

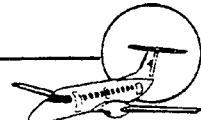
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 17000 FT

WEIGHT KG			ISA + °C										
			-40	-30	-20	-10	-5	0	10	20	30	40	
12000	TAS	KT	286	291	293	297	299	301	301	291	279	263	
	TOTAL	FC	KG/H	564	565	567	568	569	569	516	471	430	
11500	TAS	KT	287	291	295	298	299	301	303	293	282	267	
	TOTAL	FC	KG/H	564	565	567	568	569	569	516	472	431	
11000	TAS	KT	287	292	296	298	300	302	304	295	284	270	
	TOTAL	FC	KG/H	564	565	567	568	569	569	517	473	432	
10500	TAS	KT	288	292	296	300	301	302	305	295	286	273	
	TOTAL	FC	KG/H	564	565	567	568	569	569	517	473	433	
10000	TAS	KT	288	292	296	300	302	303	305	297	287	276	
	TOTAL	FC	KG/H	564	565	567	568	569	569	518	474	433	
9500	TAS	KT	289	292	296	300	302	303	306	298	289	277	
	TOTAL	FC	KG/H	564	565	567	568	569	569	518	474	434	
9000	TAS	KT	289	293	296	300	302	303	305	298	289	279	
	TOTAL	FC	KG/H	564	565	567	568	569	569	518	474	434	
8500	TAS	KT	289	293	297	301	303	305	307	299	290	280	
	TOTAL	FC	KG/H	564	565	567	568	569	569	519	475	434	
8000	TAS	KT	289	293	297	301	302	304	306	299	291	281	
	TOTAL	FC	KG/H	564	565	567	568	569	569	518	475	435	



FLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

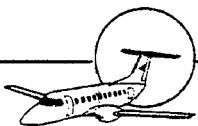
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 18000 FT

				ISA + °C													
				-40	-30	-20	-10	-5	0	10	20	30	40				
WEIGHT	KG			TAS	FC	KT	KG/H	290	293	297	299	301	303	302	292	278	261
	TOTAL	FC	KG/H	290	561	293	562	297	564	299	565	301	565	303	551	292	458
12000	TAS	FC	KT	290	561	293	562	297	564	299	565	301	565	303	551	292	458
11500	TAS	FC	KT	290	561	293	562	297	564	301	565	303	565	305	551	294	459
11000	TAS	FC	KT	291	561	295	562	298	564	302	565	304	565	305	552	294	459
10500	TAS	FC	KT	291	561	295	562	299	564	302	565	304	565	306	552	296	460
10000	TAS	FC	KT	291	561	296	562	300	564	302	565	304	565	306	553	298	460
9500	TAS	FC	KT	291	561	296	562	300	564	304	565	306	565	307	553	298	461
9000	TAS	FC	KT	291	561	296	562	300	564	304	565	305	565	307	553	299	461
8500	TAS	FC	KT	292	561	296	562	300	564	303	565	305	565	307	553	308	461
8000	TAS	FC	KT	292	561	296	562	301	564	304	565	305	565	308	553	300	462

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 19000 FT

WEIGHT KG			ISA + °C										
			-40	-30	-20	-10	-5	0	10	20	30	40	
12000	TAS TOTAL	FC	KT KG/H	292 559	296 560	299 561	303 562	305 562	307 565	302 536	292 488	278 444	257 404
11500	TAS TOTAL	FC	KT KG/H	293 559	297 560	301 561	304 562	306 562	307 565	304 536	294 489	281 445	263 405
11000	TAS TOTAL	FC	KT KG/H	293 559	297 560	302 561	304 562	306 562	309 565	305 537	295 490	283 446	268 406
10500	TAS TOTAL	FC	KT KG/H	294 553	298 560	302 561	306 562	308 562	310 565	306 537	297 490	286 447	273 408
10000	TAS TOTAL	FC	KT KG/H	294 551	299 560	302 561	306 562	308 562	310 565	307 537	297 490	288 447	276 408
9500	TAS TOTAL	FC	KT KG/H	294 550	299 560	302 561	306 562	308 562	311 565	308 538	299 491	289 448	277 409
9000	TAS TOTAL	FC	KT KG/H	294 549	299 560	303 561	307 562	309 562	311 565	308 538	300 491	290 448	280 410
8500	TAS TOTAL	FC	KT KG/H	294 548	299 560	303 561	307 561	309 562	311 565	309 538	300 491	292 448	281 410
8000	TAS TOTAL	FC	KT KG/H	294 548	299 560	303 561	307 561	309 562	312 565	309 538	301 492	293 449	282 410


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP : 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 20000 FT

				ISA + °C									
				-30	-20	-15	-10	-5	0	10	20	30	40
WEIGHT	KG	TAS	FC	KT	KG/H								
12000	TOTAL	TAS	FC	KT	KG/H	299	303	304	306	309	309	302	291
						558	559	559	559	561	561	521	475
11500	TOTAL	TAS	FC	KT	KG/H	299	304	306	308	309	311	304	293
						558	559	559	559	561	561	521	476
11000	TOTAL	TAS	FC	KT	KG/H	299	304	306	308	310	312	306	295
						547	559	559	559	561	561	522	476
10500	TOTAL	TAS	FC	KT	KG/H	299	306	306	308	312	312	306	297
						544	559	559	559	561	561	522	477
10000	TOTAL	TAS	FC	KT	KG/H	299	306	308	310	312	314	308	298
						542	559	559	559	561	561	523	477
9500	TOTAL	TAS	FC	KT	KG/H	299	306	308	310	312	314	308	300
						540	559	559	559	561	561	523	478
9000	TOTAL	TAS	FC	KT	KG/H	299	306	308	310	312	314	309	301
						538	559	559	559	561	561	523	478
8500	TOTAL	TAS	FC	KT	KG/H	299	306	309	311	313	315	309	301
						537	548	559	559	561	561	523	478
8000	TOTAL	TAS	FC	KT	KG/H	299	306	309	311	313	315	310	302
						537	547	559	559	561	561	524	478

20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

**FLIGHT PLANNING
ALL ENGINES OPERATING**

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 21000 FT

WEIGHT KG			ISA + °C										
			-30	-20	-15	-10	-5	0	10	20	30	40	
12000	TAS TOTAL	FC	KT KG/H	298 533	305 550	308 557	310 558	311 559	311 551	302 506	291 462	273 417	- -
11500	TAS TOTAL	FC	KT KG/H	298 529	305 545	308 557	310 558	312 559	313 552	304 507	293 462	278 419	257 380
11000	TAS TOTAL	FC	KT KG/H	298 525	305 541	308 548	312 555	314 559	313 552	306 507	296 463	281 420	264 382
10500	TAS TOTAL	FC	KT KG/H	298 522	305 538	308 545	312 552	314 559	315 553	307 508	298 464	285 421	269 383
10000	TAS TOTAL	FC	KT KG/H	298 519	305 535	308 542	312 549	314 559	315 553	308 508	299 465	288 421	274 384
9500	TAS TOTAL	FC	KT KG/H	298 517	305 527	308 539	312 546	315 553	316 554	309 509	301 465	289 422	277 385
9000	TAS TOTAL	FC	KT KG/H	298 515	305 526	308 538	312 544	315 551	316 554	310 509	302 466	291 422	280 385
8500	TAS TOTAL	FC	KT KG/H	298 514	305 525	308 536	312 543	315 550	316 554	310 509	302 465	292 423	281 386
8000	TAS TOTAL	FC	KT KG/H	298 513	305 524	308 535	312 542	315 549	317 554	311 510	303 466	294 423	284 386



FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

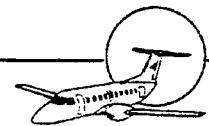
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 22000 FT

WEIGHT KG				ISA + °C									
				-30	-20	-15	-10	-5	0	10	20	30	40
12000	TAS	KT	KG/H	297	304	307	310	314	310	301	289	271	-
	TOTAL	FC	KG/H	515	529	537	543	552	537	491	448	404	-
11500	TAS	KT	KG/H	297	304	307	310	314	312	303	292	276	252
	TOTAL	FC	KG/H	510	524	531	538	545	537	492	449	406	367
11000	TAS	KT	KG/H	297	304	307	310	314	314	305	295	280	262
	TOTAL	FC	KG/H	505	520	527	534	540	538	493	450	407	369
10500	TAS	KT	KG/H	297	304	307	310	314	315	307	297	284	268
	TOTAL	FC	KG/H	502	516	523	530	536	539	493	451	408	371
10000	TAS	KT	KG/H	297	304	307	310	314	316	309	299	287	273
	TOTAL	FC	KG/H	498	508	519	526	533	539	494	451	409	372
9500	TAS	KT	KG/H	297	304	307	310	314	316	310	300	290	276
	TOTAL	FC	KG/H	496	505	516	523	530	539	495	452	410	373
9000	TAS	KT	KG/H	297	304	307	310	314	317	310	302	291	279
	TOTAL	FC	KG/H	493	504	514	521	527	534	495	452	410	374
8500	TAS	KT	KG/H	297	304	307	310	314	317	311	303	293	282
	TOTAL	FC	KG/H	492	502	512	519	526	532	495	453	410	374
8000	TAS	KT	KG/H	297	304	307	310	314	317	312	304	294	284
	TOTAL	FC	KG/H	491	501	511	518	524	531	495	453	411	375

20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

**FLIGHT PLANNING
ALL ENGINES OPERATING**

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

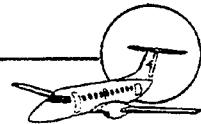
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 23000 FT

WEIGHT KG			ISA + °C											
			-30	-20	-15	-10	-5	0	10	20	30	40		
12000	TAS TOTAL	FC	KT KG/H	296 494	302 510	306 517	309 524	312 530	310 521	301 477	286 434	265 391	-	-
11500	TAS TOTAL	FC	KT KG/H	296 490	302 504	306 511	309 518	312 524	312 522	303 477	291 436	273 393	-	-
11000	TAS TOTAL	FC	KT KG/H	296 485	302 500	306 506	309 513	312 519	314 522	305 478	295 437	278 394	256 357	
10500	TAS TOTAL	FC	KT KG/H	296 481	302 495	306 502	309 508	312 515	315 523	307 479	297 437	283 396	265 359	
10000	TAS TOTAL	FC	KT KG/H	296 477	302 487	306 498	309 504	312 511	316 517	308 480	300 438	286 396	270 360	
9500	TAS TOTAL	FC	KT KG/H	296 474	302 484	306 494	309 501	312 507	316 514	310 480	301 439	289 397	275 361	
9000	TAS TOTAL	FC	KT KG/H	296 472	302 482	306 492	309 498	312 504	316 511	311 481	303 439	292 398	279 362	
8500	TAS TOTAL	FC	KT KG/H	296 470	302 480	306 490	309 496	312 502	316 509	313 481	304 440	294 398	282 363	
8000	TAS TOTAL	FC	KT KG/H	296 468	302 479	306 483	309 494	312 501	316 507	312 481	305 440	295 399	283 363	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 24000 FT

WEIGHT KG				ISA + °C									
				-30	-20	-15	-10	-5	0	10	20	30	40
12000	TAS	KT	KG/H	294	301	304	308	311	310	299	284	258	-
	TOTAL	FC	KG/H	477	492	499	505	512	505	462	420	378	-
11500	TAS	KT	KG/H	294	301	304	308	311	312	303	289	269	-
	TOTAL	FC	KG/H	472	486	492	499	506	506	463	422	380	-
11000	TAS	KT	KG/H	294	301	304	308	311	314	304	293	276	-
	TOTAL	FC	KG/H	467	480	487	493	499	506	464	423	382	-
10500	TAS	KT	KG/H	294	301	304	308	311	314	306	296	282	261
	TOTAL	FC	KG/H	462	475	481	488	494	500	465	424	383	347
10000	TAS	KT	KG/H	294	301	304	308	311	314	310	299	285	269
	TOTAL	FC	KG/H	458	468	477	483	490	496	466	425	384	348
9500	TAS	KT	KG/H	294	301	304	308	311	314	310	301	288	274
	TOTAL	FC	KG/H	454	464	473	480	486	492	466	425	385	350
9000	TAS	KT	KG/H	294	301	304	308	311	314	311	302	291	278
	TOTAL	FC	KG/H	451	461	466	476	482	489	466	426	386	351
8500	TAS	KT	KG/H	294	301	304	308	311	314	312	304	294	281
	TOTAL	FC	KG/H	449	459	463	474	480	486	467	426	387	351
8000	TAS	KT	KG/H	294	301	304	308	311	314	313	305	295	284
	TOTAL	FC	KG/H	447	457	462	472	478	484	467	427	387	352

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 25000 FT

WEIGHT KG				ISA + °C									
				-20	-15	-10	-5	0	5	10	20	30	40
12000	TAS TOTAL	FC	KT KG/H	300 475	303 482	306 488	310 495	308 488	304 469	297 447	280 406	-	-
11500	TAS TOTAL	FC	KT KG/H	300 468	303 475	306 481	310 488	310 489	306 470	301 449	287 408	263 367	-
11000	TAS TOTAL	FC	KT KG/H	300 462	303 469	306 475	310 481	312 490	310 471	304 450	292 410	273 370	-
10500	TAS TOTAL	FC	KT KG/H	300 457	303 463	306 469	310 475	313 482	312 472	306 451	295 411	279 371	255 334
10000	TAS TOTAL	FC	KT KG/H	300 449	303 458	306 464	310 470	313 476	313 473	309 452	299 412	284 372	266 337
9500	TAS TOTAL	FC	KT KG/H	300 446	303 454	306 460	310 466	313 472	315 473	311 452	300 412	288 373	272 338
9000	TAS TOTAL	FC	KT KG/H	300 442	303 446	306 456	310 462	313 468	315 473	312 453	303 413	291 374	277 339
8500	TAS TOTAL	FC	KT KG/H	300 439	303 444	306 453	310 459	313 465	316 474	313 453	305 414	293 375	280 340
8000	TAS TOTAL	FC	KT KG/H	300 437	303 442	306 451	310 456	313 462	316 468	313 453	306 414	296 375	284 341



FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 26000 FT

WEIGHT
KG

ISA + °C

				-20	-15	-10	-5	0	5	10	20	30	40
12000	TAS	KT	298	302	305	308	306	301	295	274	-	-	-
	TOTAL	FC	KG/H	460	466	472	478	472	453	433	392	-	-
11500	TAS	KT	298	302	305	308	310	304	300	283	-	-	-
	TOTAL	FC	KG/H	452	458	465	470	474	454	435	394	-	-
11000	TAS	KT	298	302	305	308	312	308	303	290	268	-	-
	TOTAL	FC	KG/H	446	452	458	464	469	455	436	396	357	-
10500	TAS	KT	298	302	305	308	312	310	305	293	277	-	-
	TOTAL	FC	KG/H	440	445	451	457	463	456	437	397	359	-
10000	TAS	KT	298	302	305	308	312	313	309	298	282	260	235
	TOTAL	FC	KG/H	432	440	446	452	457	458	438	399	360	325
9500	TAS	KT	298	302	305	308	312	315	310	300	287	270	237
	TOTAL	FC	KG/H	427	435	441	447	452	458	438	399	361	327
9000	TAS	KT	298	302	305	308	312	315	312	303	291	276	238
	TOTAL	FC	KG/H	424	428	437	442	448	454	439	400	363	328
8500	TAS	KT	298	302	305	308	312	315	313	304	294	280	239
	TOTAL	FC	KG/H	420	425	433	439	444	450	440	401	363	329
8000	TAS	KT	298	302	305	308	312	315	314	307	295	283	237
	TOTAL	FC	KG/H	418	422	426	436	441	447	440	401	364	330

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

FLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 27000 FT

WEIGHT KG				ISA + °C									
				-20	-15	-10	-5	0	5	10	20	30	40
12000	TAS TOTAL	FC	KT KG/H	297 439	300 451	304 457	307 464	304 456	299 437	291 418	-	-	-
11500	TAS TOTAL	FC	KT KG/H	297 433	300 443	304 449	307 454	308 458	302 439	296 420	279 381	-	-
11000	TAS TOTAL	FC	KT KG/H	297 427	300 436	304 442	307 447	310 459	306 440	301 422	285 382	261 344	-
10500	TAS TOTAL	FC	KT KG/H	297 421	300 429	304 435	307 440	310 446	309 441	305 423	292 384	272 347	-
10000	TAS TOTAL	FC	KT KG/H	297 415	300 423	304 428	307 434	310 440	311 442	308 424	296 385	281 349	253 313
9500	TAS TOTAL	FC	KT KG/H	297 411	300 418	304 423	307 429	310 434	314 440	310 425	299 386	285 350	265 315
9000	TAS TOTAL	FC	KT KG/H	297 407	300 410	304 418	307 424	310 429	314 435	311 425	302 387	290 351	273 317
8500	TAS TOTAL	FC	KT KG/H	297 403	300 407	304 414	307 420	310 425	314 430	313 426	305 388	293 352	279 318
8000	TAS TOTAL	FC	KT KG/H	297 399	300 404	304 407	307 416	310 422	314 427	315 427	306 389	296 353	282 319


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 28000 FT

				ISA + °C									
				-20	-15	-10	-5	0	5	10	20	30	40
12000	TAS	KT	KG/H	295	299	302	305	301	295	287	-	-	-
	TOTAL	FC	KG/H	432	438	444	453	440	421	403	-	-	-
11500	TAS	KT	KG/H	295	299	302	305	306	300	294	271	-	-
	TOTAL	FC	KG/H	418	429	435	440	442	423	405	366	-	-
11000	TAS	KT	KG/H	295	299	302	305	309	304	299	281	-	-
	TOTAL	FC	KG/H	412	421	427	432	438	425	407	369	-	-
10500	TAS	KT	KG/H	295	299	302	305	309	307	303	288	266	-
	TOTAL	FC	KG/H	406	413	419	424	430	426	409	371	334	-
10000	TAS	KT	KG/H	295	299	302	305	309	311	306	295	276	-
	TOTAL	FC	KG/H	399	407	412	418	423	427	410	373	337	-
9500	TAS	KT	KG/H	295	299	302	305	309	312	309	298	283	260
	TOTAL	FC	KG/H	395	401	406	411	417	423	411	374	338	304
9000	TAS	KT	KG/H	295	299	302	305	309	312	311	301	288	270
	TOTAL	FC	KG/H	390	393	401	406	411	417	412	375	339	306
8500	TAS	KT	KG/H	295	299	302	305	309	312	314	304	292	276
	TOTAL	FC	KG/H	385	389	393	401	407	412	413	376	340	307
8000	TAS	KT	KG/H	295	299	302	305	309	312	315	307	295	282
	TOTAL	FC	KG/H	381	386	389	398	403	408	413	376	341	308

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

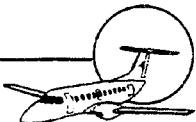
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 29000 FT

WEIGHT KG			ISA + °C										
			-20	-15	-10	-5	0	5	10	20	30	40	
12000	TAS TOTAL	FC	KT KG/H	294 420	297 426	300 431	304 437	297 424	289 405	278 386	-	-	-
11500	TAS TOTAL	FC	KT KG/H	294 405	297 416	300 421	304 425	302 426	296 408	288 390	-	-	-
11000	TAS TOTAL	FC	KT KG/H	294 398	297 407	300 413	304 416	307 422	301 410	295 392	275 355	-	-
10500	TAS TOTAL	FC	KT KG/H	294 391	297 399	300 404	304 410	307 415	307 412	300 394	285 358	-	-
10000	TAS TOTAL	FC	KT KG/H	294 384	297 392	300 397	304 402	307 408	310 413	305 396	292 360	270 324	-
9500	TAS TOTAL	FC	KT KG/H	294 379	297 385	300 390	304 395	307 401	311 407	309 397	297 361	280 326	-
9000	TAS TOTAL	FC	KT KG/H	294 373	297 377	300 384	304 389	307 394	311 399	310 398	300 362	286 328	265 295
8500	TAS TOTAL	FC	KT KG/H	294 369	297 373	300 376	304 384	307 389	311 394	313 399	303 363	291 329	275 297
8000	TAS TOTAL	FC	KT KG/H	294 364	297 369	300 372	304 380	307 385	311 390	314 394	306 364	294 330	279 298


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 30000 FT

				ISA + °C									
				-10	-5	0	5	10	15	20	25	30	40
WEIGHT	KG			TAS									
	TOTAL	FC	KT	KG/H	299	301	293	282					
12000					420	428	409	389	-	-	-	-	-
11500					299	302	300	292	280	-	-	-	-
11000					409	415	412	393	374	-	-	-	-
10500					299	302	305	299	291	281	-	-	-
10000					400	405	414	395	377	360	-	-	-
9500					299	302	306	304	298	289	279	-	-
9000					383	388	394	398	380	363	344	-	-
8500					375	380	385	392	383	366	349	331	314
9000					299	302	306	309	310	305	299	292	283
8500					369	374	379	383	384	367	350	333	316
8000					299	302	306	309	312	310	305	300	293
	TOTAL	FC	KT	KG/H	356	363	367	372	377	369	352	335	318

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 31000 FT

WEIGHT KG			ISA + °C									
			-10	-5	0	5	10	15	20	25	30	40
12000	TAS TOTAL	FC	KT KG/H	298 411	295 411	285 392	-	-	-	-	-	-
11500	TAS TOTAL	FC	KT KG/H	298 400	301 406	294 396	284 377	-	-	-	-	-
11000	TAS TOTAL	FC	KT KG/H	298 390	301 395	301 398	293 380	285 362	-	-	-	-
10500	TAS TOTAL	FC	KT KG/H	298 380	301 385	304 392	300 382	293 365	285 349	269 330	-	-
10000	TAS TOTAL	FC	KT KG/H	298 371	301 376	304 382	305 384	300 368	293 352	283 334	269 316	-
9500	TAS TOTAL	FC	KT KG/H	298 363	301 368	304 374	308 379	304 369	299 353	292 336	281 319	268 302
9000	TAS TOTAL	FC	KT KG/H	298 356	301 361	304 365	308 370	309 371	304 355	297 338	289 321	278 304
8500	TAS TOTAL	FC	KT KG/H	298 350	301 354	304 359	308 364	311 369	307 356	301 339	294 322	287 306
8000	TAS TOTAL	FC	KT KG/H	298 342	301 349	304 353	308 358	311 362	310 357	304 340	299 323	292 307


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**FLIGHT PLANNING
ALL ENGINES OPERATING**
PW118A ENGINES**MAXIMUM SPEED CRUISE**

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 32000 FT

WEIGHT KG			ISA + °C									
			-10	-5	0	5	10	15	20	25	30	40
12000	TAS TOTAL	FC	KT KG/H	296 411	286 393	-	-	-	-	-	-	-
11500	TAS TOTAL	FC	KT KG/H	296 391	296 397	287 379	-	-	-	-	-	-
11000	TAS TOTAL	FC	KT KG/H	296 381	300 386	297 383	287 364	-	-	-	-	-
10500	TAS TOTAL	FC	KT KG/H	296 370	300 375	302 385	296 367	287 350	275 333	-	-	-
10000	TAS TOTAL	FC	KT KG/H	296 361	300 365	303 372	303 370	296 353	287 337	275 320	-	-
9500	TAS TOTAL	FC	KT KG/H	296 347	300 357	303 362	306 371	301 355	296 340	287 323	274 306	-
9000	TAS TOTAL	FC	KT KG/H	296 342	300 349	303 353	307 359	306 357	301 341	294 325	285 309	273 292
8500	TAS TOTAL	FC	KT KG/H	296 335	300 341	303 346	307 351	309 358	306 343	299 326	291 310	284 295
8000	TAS TOTAL	FC	KT KG/H	296 329	300 335	303 340	307 344	310 349	309 344	303 328	298 312	290 296

20 NOVEMBER 1992



EMBRAER
EMB120 Brasilia
**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

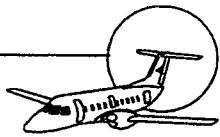
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 5000 FT

WEIGHT KG	TAS KT	TOTAL FC KG/H	ISA + °C									
			-60	-40	-30	-20	-10	0	10	20	30	40
12000	TAS	KT	224	231	234	237	239	242	244	247	249	252
	TOTAL FC	KG/H	523	533	537	541	545	550	554	558	562	566
11500	TAS	KT	225	231	234	237	240	243	245	248	250	253
	TOTAL FC	KG/H	523	533	537	541	545	550	554	558	562	566
11000	TAS	KT	225	232	235	238	241	243	246	249	251	253
	TOTAL FC	KG/H	523	533	537	541	545	550	554	558	562	566
10500	TAS	KT	225	232	235	238	241	244	247	249	252	254
	TOTAL FC	KG/H	523	533	537	541	545	550	554	558	562	566
10000	TAS	KT	226	232	236	239	242	244	247	250	252	255
	TOTAL FC	KG/H	523	533	537	541	545	550	554	558	562	566
9500	TAS	KT	226	233	236	239	242	245	247	250	253	255
	TOTAL FC	KG/H	523	533	537	541	545	550	554	558	562	566
9000	TAS	KT	226	233	236	239	242	245	248	251	253	256
	TOTAL FC	KG/H	523	533	537	541	545	550	554	558	562	566
8500	TAS	KT	226	233	236	240	242	245	248	251	254	256
	TOTAL FC	KG/H	523	533	537	541	546	550	554	558	562	566
8000	TAS	KT	226	233	236	240	243	245	248	251	254	256
	TOTAL FC	KG/H	523	533	537	541	546	550	554	558	562	566

17 MARCH 1999


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

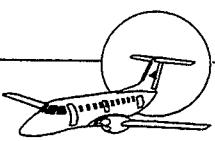
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 6000 FT

WEIGHT KG			ISA + °C									
			-60	-40	-30	-20	-10	0	10	20	30	40
12000	TAS	KT	226	233	236	239	242	244	247	249	251	254
	TOTAL FC	KG/H	515	524	528	532	536	540	544	548	552	556
11500	TAS	KT	227	233	236	239	242	245	247	250	252	255
	TOTAL FC	KG/H	515	524	528	532	536	540	544	548	552	556
11000	TAS	KT	227	234	237	240	243	246	248	251	253	256
	TOTAL FC	KG/H	515	524	528	532	536	540	544	548	552	556
10500	TAS	KT	227	234	238	241	243	246	249	251	254	257
	TOTAL FC	KG/H	515	524	528	532	536	540	544	548	552	556
10000	TAS	KT	228	235	238	241	244	247	249	252	255	257
	TOTAL FC	KG/H	515	524	528	533	536	540	544	548	552	556
9500	TAS	KT	228	235	238	241	244	247	250	253	255	258
	TOTAL FC	KG/H	515	524	528	533	536	540	544	548	552	556
9000	TAS	KT	228	235	238	242	245	247	250	253	256	258
	TOTAL FC	KG/H	515	524	528	533	536	540	544	548	552	556
8500	TAS	KT	228	235	239	242	245	248	250	253	256	259
	TOTAL FC	KG/H	515	524	528	533	536	540	544	548	552	556
8000	TAS	KT	228	235	239	242	245	248	251	253	256	259
	TOTAL FC	KG/H	515	524	528	533	536	540	544	548	552	556

17 MARCH 1999



EMBRAER
EMB120 Brasilia
**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

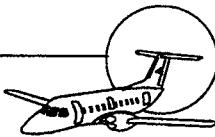
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 7000 FT

WEIGHT KG			ISA + °C										
			-60	-40	-30	-20	-10	0	10	20	30	40	
12000	TAS	KT	228	235	238	241	244	246	249	251	254	256	
	TOTAL FC	KG/H	508	516	520	524	528	532	535	539	542	546	
11500	TAS	KT	229	235	239	242	244	247	250	252	255	257	
	TOTAL FC	KG/H	508	516	520	524	528	532	535	539	542	546	
11000	TAS	KT	229	236	239	242	245	248	250	253	256	258	
	TOTAL FC	KG/H	508	516	520	524	528	532	535	539	542	546	
10500	TAS	KT	230	236	240	243	246	249	251	254	256	259	
	TOTAL FC	KG/H	508	516	520	524	528	532	535	539	542	546	
10000	TAS	KT	230	237	240	243	246	249	252	254	257	260	
	TOTAL FC	KG/H	508	516	520	524	528	532	535	539	542	546	
9500	TAS	KT	230	237	240	244	247	250	252	255	258	260	
	TOTAL FC	KG/H	508	516	520	524	528	532	535	539	542	546	
9000	TAS	KT	230	237	241	244	247	250	253	255	258	261	
	TOTAL FC	KG/H	508	516	520	524	528	532	535	539	542	546	
8500	TAS	KT	230	238	241	244	247	250	253	256	258	261	
	TOTAL FC	KG/H	508	516	520	524	528	532	535	539	542	546	
8000	TAS	KT	231	238	241	244	247	250	253	256	259	261	
	TOTAL FC	KG/H	508	516	520	524	528	532	535	539	542	546	

17 MARCH 1999


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

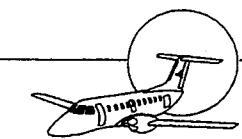
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 8000 FT

				ISA + °C									
				-60	-40	-30	-20	-10	0	10	20	30	40
12000	TAS	KT	230	237	240	243	246	248	251	253	256	258	
	TOTAL FC	KG/H	500	508	512	516	519	523	527	530	534	537	
11500	TAS	KT	231	238	241	244	247	249	252	254	257	259	
	TOTAL FC	KG/H	500	508	512	516	519	523	527	530	534	537	
11000	TAS	KT	231	238	241	245	247	250	253	255	258	260	
	TOTAL FC	KG/H	500	508	512	516	519	523	527	530	534	537	
10500	TAS	KT	232	239	242	245	248	251	254	256	259	262	
	TOTAL FC	KG/H	500	508	512	516	519	523	527	530	534	537	
10000	TAS	KT	232	239	242	246	249	251	254	257	259	262	
	TOTAL FC	KG/H	500	508	512	516	519	523	527	530	534	537	
9500	TAS	KT	232	239	243	246	249	252	255	257	260	263	
	TOTAL FC	KG/H	500	508	512	516	519	523	527	530	534	537	
9000	TAS	KT	233	240	243	246	249	252	255	258	261	264	
	TOTAL FC	KG/H	500	508	512	516	519	523	527	530	534	537	
8500	TAS	KT	233	240	243	247	250	253	255	258	261	264	
	TOTAL FC	KG/H	500	508	512	516	519	523	527	530	534	537	
8000	TAS	KT	233	240	243	247	250	253	256	258	261	264	
	TOTAL FC	KG/H	500	508	512	516	519	523	527	530	534	537	

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EMBRAER
EMB120 Brasilia
**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

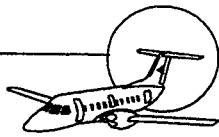
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 9000 FT

WEIGHT KG	TAS KT	TOTAL FC KG/H	ISA + °C									
			-60	-40	-30	-20	-10	0	10	20	30	40
12000	TAS	KT	232	239	242	245	248	251	253	255	258	261
	TOTAL FC	KG/H	493	501	504	508	511	515	518	522	525	528
11500	TAS	KT	233	240	243	246	249	252	254	257	259	262
	TOTAL FC	KG/H	493	501	504	508	511	515	518	522	525	528
11000	TAS	KT	233	240	244	247	250	253	255	258	260	263
	TOTAL FC	KG/H	493	501	504	508	512	515	518	522	525	528
10500	TAS	KT	234	241	244	247	250	253	256	259	261	264
	TOTAL FC	KG/H	493	501	504	508	512	515	518	522	525	528
10000	TAS	KT	234	241	245	248	251	254	257	259	262	265
	TOTAL FC	KG/H	493	501	504	508	512	515	518	522	525	528
9500	TAS	KT	235	242	245	248	252	254	257	260	263	265
	TOTAL FC	KG/H	494	501	504	508	512	515	518	522	525	528
9000	TAS	KT	235	242	245	249	252	255	258	260	263	266
	TOTAL FC	KG/H	494	501	504	508	512	515	518	522	525	528
8500	TAS	KT	235	242	246	249	252	255	258	261	264	266
	TOTAL FC	KG/H	494	501	504	508	512	515	518	522	525	528
8000	TAS	KT	235	242	246	249	252	255	258	261	264	267
	TOTAL FC	KG/H	494	501	504	508	512	515	518	522	525	528

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

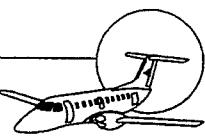
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 10000 FT

WEIGHT KG			ISA + °C									
			-50	-40	-30	-20	-10	0	10	20	30	40
12000	TAS	KT	238	241	245	248	250	253	255	258	260	263
	TOTAL FC	KG/H	490	494	497	500	504	507	510	514	517	521
11500	TAS	KT	239	242	245	248	251	254	256	259	261	264
	TOTAL FC	KG/H	490	494	497	500	504	507	510	514	517	520
11000	TAS	KT	239	243	246	249	252	255	257	260	263	266
	TOTAL FC	KG/H	490	494	497	500	504	507	510	514	517	520
10500	TAS	KT	240	243	247	250	253	256	258	261	264	267
	TOTAL FC	KG/H	490	494	497	500	504	507	510	514	517	520
10000	TAS	KT	240	244	247	250	253	256	259	262	264	267
	TOTAL FC	KG/H	490	494	497	500	504	507	510	514	517	520
9500	TAS	KT	240	244	248	251	254	257	260	262	265	269
	TOTAL FC	KG/H	490	494	497	500	504	507	510	514	517	520
9000	TAS	KT	241	244	248	251	254	257	260	263	266	269
	TOTAL FC	KG/H	490	494	497	500	504	507	510	514	517	520
8500	TAS	KT	241	245	248	251	255	258	261	263	266	269
	TOTAL FC	KG/H	490	494	497	500	504	507	510	514	517	520
8000	TAS	KT	241	245	248	252	255	258	261	264	266	270
	TOTAL FC	KG/H	490	494	497	500	504	507	510	514	517	520

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MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

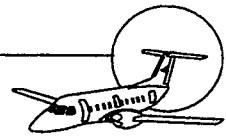
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 11000 FT

WEIGHT KG			ISA + °C										
			-50	-40	-30	-20	-10	0	10	20	30	40	
12000	TAS	KT	251	255	258	262	265	268	272	274	269	260	
	TOTAL FC	KG/H	526	530	535	539	544	548	553	557	531	499	
11500	TAS	KT	250	254	258	262	265	268	271	274	269	261	
	TOTAL FC	KG/H	520	527	531	535	540	545	549	553	527	496	
11000	TAS	KT	250	254	258	261	265	268	271	275	269	261	
	TOTAL FC	KG/H	516	522	528	532	536	541	546	550	523	492	
10500	TAS	KT	249	253	258	261	265	268	271	274	269	261	
	TOTAL FC	KG/H	513	518	524	529	533	537	542	546	520	489	
10000	TAS	KT	249	253	257	261	265	268	271	274	269	261	
	TOTAL FC	KG/H	511	515	521	525	530	534	538	543	517	486	
9500	TAS	KT	249	253	257	261	264	268	271	274	269	262	
	TOTAL FC	KG/H	509	512	517	522	527	531	535	539	514	483	
9000	TAS	KT	249	253	256	260	264	267	270	274	269	262	
	TOTAL FC	KG/H	507	510	514	520	524	528	532	536	510	480	
8500	TAS	KT	249	252	256	260	264	267	270	273	269	261	
	TOTAL FC	KG/H	505	509	512	516	521	526	530	534	507	477	
8000	TAS	KT	248	252	256	259	263	267	270	273	268	261	
	TOTAL FC	KG/H	504	507	510	513	518	524	527	531	505	474	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

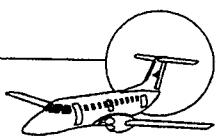
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 12000 FT

WEIGHT KG			ISA + °C										
			-50	-40	-30	-20	-10	0	10	20	30	40	
12000	TAS	KT	253	257	260	264	267	271	274	276	270	261	
	TOTAL FC	KG/H	520	523	528	532	537	541	546	548	519	488	
11500	TAS	KT	252	257	260	264	267	271	274	276	270	262	
	TOTAL FC	KG/H	515	521	524	528	533	537	542	544	515	484	
11000	TAS	KT	252	256	260	264	267	271	274	276	270	262	
	TOTAL FC	KG/H	510	516	521	525	529	533	538	540	511	480	
10500	TAS	KT	252	256	260	264	267	270	274	276	270	262	
	TOTAL FC	KG/H	507	512	518	522	526	530	534	536	508	477	
10000	TAS	KT	251	255	260	263	267	270	273	276	270	262	
	TOTAL FC	KG/H	504	508	514	518	523	527	530	533	504	474	
9500	TAS	KT	251	255	259	263	267	270	273	276	270	263	
	TOTAL FC	KG/H	502	505	510	515	519	524	527	529	501	471	
9000	TAS	KT	251	255	259	263	266	270	273	276	270	263	
	TOTAL FC	KG/H	500	503	507	512	517	520	524	526	498	468	
8500	TAS	KT	251	255	258	262	266	269	273	275	270	262	
	TOTAL FC	KG/H	498	501	504	509	514	518	521	523	494	465	
8000	TAS	KT	251	254	258	262	265	269	272	275	269	262	
	TOTAL FC	KG/H	496	499	502	506	510	515	519	520	491	462	

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MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

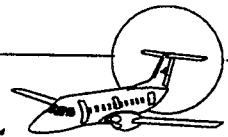
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 13000 FT

WEIGHT KG	TAS KT	TOTAL FC KG/H	ISA + °C									
			-50	-40	-30	-20	-10	0	10	20	30	40
12000	TAS KT	255	259	263	267	270	273	276	278	270	261	261
	TOTAL FC KG/H	514	517	522	526	531	535	539	537	507	477	
11500	TAS KT	255	259	263	266	270	273	276	278	271	262	262
	TOTAL FC KG/H	510	514	518	522	527	531	535	533	503	473	
11000	TAS KT	254	259	263	266	270	273	276	278	271	263	263
	TOTAL FC KG/H	505	511	514	518	523	527	531	528	498	469	
10500	TAS KT	254	258	262	266	270	273	276	278	271	263	263
	TOTAL FC KG/H	500	507	511	515	519	523	527	525	495	465	
10000	TAS KT	254	258	262	266	269	273	276	278	271	263	263
	TOTAL FC KG/H	497	501	508	511	515	519	523	521	491	462	
9500	TAS KT	253	257	262	266	269	272	276	277	271	263	263
	TOTAL FC KG/H	495	498	503	508	512	516	520	517	488	458	
9000	TAS KT	253	257	261	265	269	272	275	277	271	264	264
	TOTAL FC KG/H	492	496	500	505	509	513	517	514	485	456	
8500	TAS KT	253	257	261	265	268	272	275	277	271	264	264
	TOTAL FC KG/H	491	494	497	502	506	510	514	511	481	452	
.8000	TAS KT	253	257	260	264	268	271	275	276	270	263	263
	TOTAL FC KG/H	489	492	495	499	503	508	511	508	478	449	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

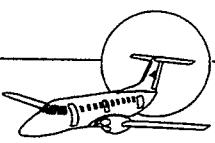
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 14000 FT

WEIGHT KG			ISA + °C										
			-50	-40	-30	-20	-10	0	10	20	30	40	
12000	TAS	KT	257	261	265	269	272	276	279	278	271	262	
	TOTAL FC	KG/H	508	512	517	521	525	529	534	525	495	467	
11500	TAS	KT	258	261	265	269	272	276	279	278	272	263	
	TOTAL FC	KG/H	505	508	512	516	521	525	529	520	491	462	
11000	TAS	KT	257	261	265	269	272	276	279	278	272	264	
	TOTAL FC	KG/H	501	505	508	512	517	521	525	516	487	458	
10500	TAS	KT	256	261	265	269	272	275	279	278	272	264	
	TOTAL FC	KG/H	495	501	505	509	513	516	521	512	482	454	
10000	TAS	KT	256	260	265	268	272	275	278	278	272	264	
	TOTAL FC	KG/H	491	496	502	505	509	513	517	508	479	450	
9500	TAS	KT	256	260	264	268	272	275	278	278	272	264	
	TOTAL FC	KG/H	489	492	497	502	506	510	513	504	476	447	
9000	TAS	KT	255	259	264	268	271	275	278	278	272	265	
	TOTAL FC	KG/H	486	490	494	498	503	507	510	501	472	444	
8500	TAS	KT	255	259	263	267	271	274	278	278	272	265	
	TOTAL FC	KG/H	484	487	491	495	499	503	507	498	469	441	
8000	TAS	KT	255	259	263	267	270	274	277	277	271	265	
	TOTAL FC	KG/H	483	485	488	492	496	500	504	495	466	438	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

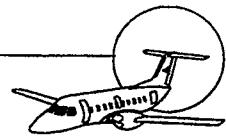
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 15000 FT

WEIGHT KG			ISA + °C									
			-40	-30	-20	-10	-5	0	10	20	30	40
12000	TAS	KT	264	268	272	275	276	278	282	279	272	263
	TOTAL FC	KG/H	507	512	516	520	522	524	529	512	483	453
11500	TAS	KT	264	268	271	275	277	278	281	279	272	263
	TOTAL FC	KG/H	503	507	511	516	517	519	524	507	479	451
11000	TAS	KT	263	267	271	275	276	278	281	279	273	264
	TOTAL FC	KG/H	499	503	507	511	513	515	519	503	475	447
10500	TAS	KT	263	267	271	275	276	278	281	279	273	265
	TOTAL FC	KG/H	496	499	503	507	509	511	515	499	471	444
10000	TAS	KT	263	267	271	274	276	278	281	279	273	265
	TOTAL FC	KG/H	491	496	500	503	505	507	511	495	467	439
9500	TAS	KT	262	267	271	274	276	277	281	279	273	265
	TOTAL FC	KG/H	487	492	496	500	501	503	507	491	463	436
9000	TAS	KT	262	266	270	274	276	277	281	279	273	265
	TOTAL FC	KG/H	484	488	493	496	498	500	504	488	460	432
8500	TAS	KT	261	266	270	273	275	277	280	279	273	266
	TOTAL FC	KG/H	481	485	489	493	495	497	501	484	457	429
8000	TAS	KT	261	265	269	273	275	276	280	278	272	266
	TOTAL FC	KG/H	478	482	486	490	492	493	498	481	453	426

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**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 16000 FT

WEIGHT KG			ISA + °C										
			-40	-30	-20	-10	-5	0	10	20	30	40	
12000	TAS	KT	266	270	274	277	279	281	284	279	272	264	
	TOTAL FC	KG/H	503	507	511	515	517	519	524	500	472	443	
11500	TAS	KT	266	270	274	277	279	281	284	280	273	264	
	TOTAL FC	KG/H	499	503	507	511	512	514	519	495	468	441	
11000	TAS	KT	266	270	274	277	279	281	284	280	273	265	
	TOTAL FC	KG/H	494	498	502	506	508	510	514	491	464	437	
10500	TAS	KT	266	270	273	277	279	281	284	280	274	265	
	TOTAL FC	KG/H	490	494	498	502	504	505	509	486	460	433	
10000	TAS	KT	266	269	273	277	279	280	284	280	274	266	
	TOTAL FC	KG/H	487	490	494	497	499	501	505	482	455	429	
9500	TAS	KT	265	269	273	277	278	280	284	280	274	266	
	TOTAL FC	KG/H	482	487	491	494	495	497	501	478	452	425	
9000	TAS	KT	264	269	273	276	278	280	283	280	274	266	
	TOTAL FC	KG/H	478	483	487	490	492	494	498	475	448	421	
8500	TAS	KT	264	268	272	276	278	280	283	279	274	267	
	TOTAL FC	KG/H	475	479	483	487	489	490	494	471	445	418	
8000	TAS	KT	264	268	272	276	277	279	283	279	273	267	
	TOTAL FC	KG/H	472	476	479	483	485	487	491	468	441	415	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

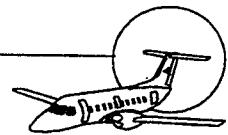
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 17000 FT

WEIGHT KG	TAS	KT	ISA + °C									
			-40	-30	-20	-10	-5	0	10	20	30	40
12000	TAS	KT	269	273	276	280	282	283	286	280	272	263
	TOTAL FC	KG/H	499	503	507	511	513	515	516	488	461	430
11500	TAS	KT	269	273	276	280	282	283	286	280	273	265
	TOTAL FC	KG/H	495	499	502	506	508	510	512	484	456	429
11000	TAS	KT	268	272	276	280	282	283	286	281	274	265
	TOTAL FC	KG/H	490	494	498	501	503	505	507	479	453	426
10500	TAS	KT	268	272	276	280	282	283	286	281	274	266
	TOTAL FC	KG/H	486	490	493	497	499	500	502	475	448	422
10000	TAS	KT	268	272	276	280	281	283	286	281	274	267
	TOTAL FC	KG/H	483	486	489	492	495	496	498	471	444	419
9500	TAS	KT	268	272	276	279	281	283	286	281	274	267
	TOTAL FC	KG/H	479	482	485	488	490	491	494	467	440	414
9000	TAS	KT	267	271	275	279	281	282	285	281	275	267
	TOTAL FC	KG/H	473	479	482	485	487	488	490	463	436	410
8500	TAS	KT	266	271	275	279	280	282	285	280	275	267
	TOTAL FC	KG/H	470	474	478	481	483	485	486	459	433	407
8000	TAS	KT	266	270	274	278	280	282	285	280	274	268
	TOTAL FC	KG/H	467	470	474	478	480	481	483	455	429	404

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**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 18000 FT

WEIGHT KG			ISA + °C									
			-40	-30	-20	-10	-5	0	10	20	30	40
12000	TAS	KT	271	275	279	283	284	286	287	280	272	260
	TOTAL FC	KG/H	496	499	503	508	509	511	506	477	450	418
11500	TAS	KT	271	275	279	283	284	286	287	281	273	266
	TOTAL FC	KG/H	491	495	498	502	504	506	501	473	446	418
11000	TAS	KT	271	275	279	283	284	286	287	281	274	265
	TOTAL FC	KG/H	486	490	494	497	499	501	497	468	441	416
10500	TAS	KT	271	275	279	282	284	286	287	282	275	266
	TOTAL FC	KG/H	482	486	489	493	494	496	492	464	437	412
10000	TAS	KT	270	274	278	282	284	286	287	282	275	267
	TOTAL FC	KG/H	478	481	485	488	490	491	487	459	433	408
9500	TAS	KT	270	274	278	282	284	285	287	282	275	268
	TOTAL FC	KG/H	476	477	481	484	486	487	483	455	429	404
9000	TAS	KT	270	274	278	282	283	285	287	282	275	268
	TOTAL FC	KG/H	470	474	477	480	482	483	479	451	425	400
8500	TAS	KT	269	273	278	281	283	285	286	281	275	268
	TOTAL FC	KG/H	465	469	473	476	478	479	475	447	421	397
8000	TAS	KT	269	273	277	281	283	284	286	281	275	268
	TOTAL FC	KG/H	462	465	470	473	474	476	472	443	417	393

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

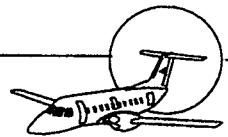
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 19000 FT

WEIGHT KG	TAS	KT	ISA + °C									
			-40	-30	-20	-10	-5	0	10	20	30	40
12000	TAS	KT	274	278	281	285	287	289	288	281	272	257
	TOTAL FC	KG/H	493	496	500	504	506	508	495	467	439	404
11500	TAS	KT	273	278	281	285	287	289	288	281	273	263
	TOTAL FC	KG/H	488	491	495	499	501	503	490	462	436	405
11000	TAS	KT	273	277	281	285	287	289	288	282	274	266
	TOTAL FC	KG/H	483	487	490	493	495	498	485	457	431	404
10500	TAS	KT	273	277	281	285	287	289	288	282	275	266
	TOTAL FC	KG/H	479	482	485	489	490	493	481	453	427	400
10000	TAS	KT	273	277	281	285	287	289	288	282	276	268
	TOTAL FC	KG/H	474	478	481	485	486	488	476	449	422	398
9500	TAS	KT	273	277	281	285	286	289	288	282	276	268
	TOTAL FC	KG/H	471	473	477	480	481	484	472	444	418	394
9000	TAS	KT	272	276	280	284	286	288	288	282	276	269
	TOTAL FC	KG/H	467	469	473	475	477	479	468	440	414	390
8500	TAS	KT	271	276	280	284	286	288	287	282	276	269
	TOTAL FC	KG/H	461	466	469	471	473	475	463	436	410	386
8000	TAS	KT	271	275	280	284	285	287	287	282	276	269
	TOTAL FC	KG/H	457	461	465	468	469	471	459	432	407	382


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

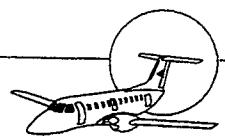
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 20000 FT

WEIGHT KG	ISA + °C											
	-30	-20	-15	-10	-5	0	10	20	30	40		
12000 TAS KT 280 284 286 288 290 292 288 281 274 253												
TOTAL FC KG/H 494 498 500 501 504 506 484 457 429 390												
11500 TAS KT 280 284 286 288 290 292 288 282 273 260												
TOTAL FC KG/H 488 492 494 496 498 500 479 452 426 392												
11000 TAS KT 280 284 286 288 290 292 289 283 274 267												
TOTAL FC KG/H 484 487 489 490 493 495 474 447 421 394												
10500 TAS KT 280 284 286 288 290 292 289 283 275 266												
TOTAL FC KG/H 479 482 484 485 487 490 470 442 416 392												
10000 TAS KT 280 284 286 288 290 292 289 283 276 268												
TOTAL FC KG/H 475 478 479 481 483 485 464 438 412 388												
9500 TAS KT 279 283 286 287 289 292 289 283 277 269												
TOTAL FC KG/H 470 473 475 476 478 480 460 433 408 384												
9000 TAS KT 279 283 285 287 289 291 289 283 277 270												
TOTAL FC KG/H 465 468 470 471 473 476 455 429 404 380												
8500 TAS KT 279 283 285 287 289 291 288 283 277 270												
TOTAL FC KG/H 462 465 466 467 469 471 452 425 399 376												
8000 TAS KT 278 282 284 286 288 290 288 283 277 270												
TOTAL FC KG/H 458 462 463 465 467 447 422 396 372												

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

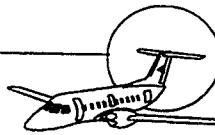
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 21000 FT

WEIGHT KG			ISA + °C										
			-30	-20	-15	-10	-5	0	10	20	30	40	
12000	TAS	KT	283	287	289	291	293	294	288	281	273	-	-
	TOTAL FC	KG/H	492	496	497	499	501	499	473	447	417	-	-
11500	TAS	KT	283	287	289	291	293	294	289	282	275	257	257
	TOTAL FC	KG/H	486	490	492	493	496	494	468	442	415	380	380
11000	TAS	KT	282	287	289	291	293	294	289	283	275	264	264
	TOTAL FC	KG/H	478	484	486	488	491	490	464	437	411	382	382
10500	TAS	KT	281	287	289	291	293	294	289	284	276	268	268
	TOTAL FC	KG/H	471	480	481	482	485	485	458	433	407	381	381
10000	TAS	KT	281	287	289	290	293	294	290	284	277	268	268
	TOTAL FC	KG/H	465	475	476	477	480	479	454	428	402	379	379
9500	TAS	KT	280	286	288	290	292	294	290	284	277	269	269
	TOTAL FC	KG/H	456	470	471	473	475	474	449	423	398	374	374
9000	TAS	KT	279	286	288	290	292	293	290	284	278	270	270
	TOTAL FC	KG/H	451	465	467	468	471	470	444	419	393	371	371
8500	TAS	KT	278	285	288	289	292	293	289	284	278	271	271
	TOTAL FC	KG/H	446	459	462	464	466	465	440	414	389	366	366
8000	TAS	KT	278	285	287	289	291	293	289	284	278	271	271
	TOTAL FC	KG/H	442	455	458	460	462	461	436	410	385	362	362


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

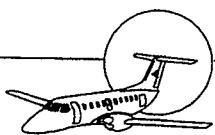
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 22000 FT

			ISA + °C										
			-30	-20	-15	-10	-5	0	10	20	30	40	
WEIGHT		KG											
12000	TAS	KT	282	289	291	294	295	294	289	282	270	-	
	TOTAL FC	KG/H	478	493	495	498	498	490	463	438	404	-	
11500	TAS	KT	282	289	292	294	295	295	289	282	275	252	
	TOTAL FC	KG/H	470	485	489	492	492	485	458	433	405	367	
11000	TAS	KT	281	288	291	294	296	295	290	283	275	261	
	TOTAL FC	KG/H	462	476	483	487	487	480	453	428	402	369	
10500	TAS	KT	280	287	290	294	296	295	290	284	276	268	
	TOTAL FC	KG/H	454	468	474	480	482	475	448	423	397	371	
10000	TAS	KT	280	286	290	293	295	295	290	284	277	269	
	TOTAL FC	KG/H	448	461	467	473	477	470	443	418	392	369	
9500	TAS	KT	279	286	289	292	295	295	290	285	278	269	
	TOTAL FC	KG/H	441	454	460	466	471	465	438	413	388	365	
9000	TAS	KT	278	285	288	291	295	295	290	285	278	270	
	TOTAL FC	KG/H	435	448	454	459	465	460	433	408	384	361	
8500	TAS	KT	278	284	288	291	294	295	290	285	279	271	
	TOTAL FC	KG/H	429	442	448	454	459	456	429	404	379	357	
8000	TAS	KT	277	284	287	290	293	294	290	285	278	272	
	TOTAL FC	KG/H	425	436	442	448	453	451	425	400	374	353	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

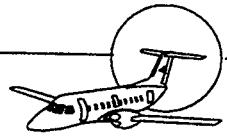
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 23000 FT

WEIGHT KG	TAS	KT	ISA + °C									
			-30	-20	-15	-10	-5	0	10	20	30	40
12000	TAS	KT	282	289	292	295	296	294	288	281	265	-
	TOTAL FC	KG/H	464	479	486	493	491	479	454	429	391	-
11500	TAS	KT	281	288	291	294	297	295	289	282	273	-
	TOTAL FC	KG/H	456	470	477	483	485	473	448	423	393	-
11000	TAS	KT	280	287	291	294	297	295	290	283	275	256
	TOTAL FC	KG/H	448	462	468	474	480	468	442	417	390	357
10500	TAS	KT	280	287	290	293	296	296	291	284	276	265
	TOTAL FC	KG/H	440	453	459	466	472	463	438	413	388	359
10000	TAS	KT	279	286	289	292	296	296	291	285	277	269
	TOTAL FC	KG/H	432	445	451	457	463	459	433	408	383	359
9500	TAS	KT	278	285	288	291	295	296	291	285	278	270
	TOTAL FC	KG/H	425	438	443	449	455	452	428	403	378	354
9000	TAS	KT	278	285	288	291	294	295	291	286	279	271
	TOTAL FC	KG/H	419	431	437	443	448	448	423	398	374	352
8500	TAS	KT	277	284	287	290	293	295	291	286	279	272
	TOTAL FC	KG/H	413	425	431	436	442	444	418	394	369	348
8000	TAS	KT	276	283	286	289	293	295	291	286	279	272
	TOTAL FC	KG/H	408	420	425	431	436	440	414	389	364	344


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

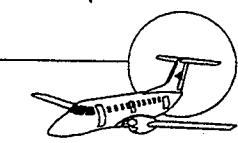
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 24000 FT

WEIGHT KG			ISA + °C										
			-30	-20	-15	-10	-5	0	10	20	30	40	
12000	TAS	KT	281	288	291	296	296	294	288	282	258	-	
	TOTAL FC	KG/H	452	467	474	484	480	468	444	417	378	-	
11500	TAS	KT	280	287	290	294	297	295	289	282	268	-	
	TOTAL FC	KG/H	443	457	463	469	474	462	438	413	383	-	
11000	TAS	KT	280	287	290	293	296	295	290	283	276	-	
	TOTAL FC	KG/H	435	448	454	460	466	457	433	408	381	-	
10500	TAS	KT	279	286	289	292	296	296	291	284	277	261	
	TOTAL FC	KG/H	426	439	445	451	457	452	427	403	378	347	
10000	TAS	KT	278	285	288	292	295	296	292	285	277	269	
	TOTAL FC	KG/H	418	430	436	442	448	447	422	398	374	348	
9500	TAS	KT	278	284	288	291	294	296	292	286	278	271	
	TOTAL FC	KG/H	411	422	428	434	440	442	418	393	369	346	
9000	TAS	KT	277	284	287	290	293	296	292	286	279	271	
	TOTAL FC	KG/H	404	416	421	426	432	436	413	388	364	343	
8500	TAS	KT	276	283	286	290	293	296	292	286	279	272	
	TOTAL FC	KG/H	398	409	415	420	425	431	408	384	360	339	
8000	TAS	KT	276	282	285	289	292	295	292	286	280	273	
	TOTAL FC	KG/H	392	403	408	414	419	424	403	378	356	334	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

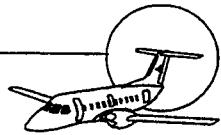
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 25000 FT

WEIGHT KG			ISA + °C										
			-20	-15	-10	-5	0	5	10	20	30	40	
12000	TAS	KT	287	291	295	296	294	291	289	280	-	-	
	TOTAL FC	KG/H	456	462	472	469	457	447	433	406	-	-	
11500	TAS	KT	287	290	293	297	295	292	289	283	263	-	
	TOTAL FC	KG/H	445	451	457	463	452	441	429	402	367	-	
11000	TAS	KT	286	289	292	296	295	293	290	283	273	-	
	TOTAL FC	KG/H	435	441	447	453	446	435	423	398	370	-	
10500	TAS	KT	285	289	292	295	296	294	291	284	277	255	
	TOTAL FC	KG/H	426	431	437	443	440	429	418	393	368	334	
10000	TAS	KT	285	288	291	294	296	294	292	285	278	265	
	TOTAL FC	KG/H	417	423	429	434	436	424	413	388	365	337	
9500	TAS	KT	284	287	290	294	297	295	292	286	278	271	
	TOTAL FC	KG/H	408	414	420	425	430	420	407	383	360	336	
9000	TAS	KT	283	286	290	293	296	295	292	287	279	272	
	TOTAL FC	KG/H	401	407	412	417	423	415	402	379	355	333	
8500	TAS	KT	282	286	289	292	295	295	293	287	280	272	
	TOTAL FC	KG/H	394	400	405	410	415	410	398	374	351	330	
8000	TAS	KT	282	285	288	291	294	295	293	287	280	273	
	TOTAL FC	KG/H	388	394	398	403	409	404	393	369	346	326	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

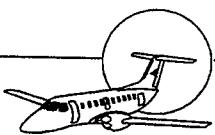
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 26000 FT

WEIGHT KG			ISA + °C										
			-20	-15	-10	-5	0	5	10	20	30	40	
12000	TAS	KT	287	290	297	296	293	290	288	274	-	-	
	TOTAL FC	KG/H	446	452	469	459	447	437	425	392	-	-	
11500	TAS	KT	286	290	294	297	294	292	289	282	-	-	
	TOTAL FC	KG/H	434	440	451	452	441	431	419	393	-	-	
11000	TAS	KT	285	289	292	296	295	293	290	283	268	-	
	TOTAL FC	KG/H	423	429	435	442	435	425	414	390	357	-	
10500	TAS	KT	285	288	291	294	296	294	291	284	277	-	
	TOTAL FC	KG/H	414	419	425	431	430	419	408	384	359	-	
10000	TAS	KT	284	287	290	294	296	295	292	285	278	260	
	TOTAL FC	KG/H	405	410	415	420	424	414	403	379	356	325	
9500	TAS	KT	283	287	290	293	296	295	293	286	278	269	
	TOTAL FC	KG/H	396	401	407	412	417	409	398	374	352	327	
9000	TAS	KT	282	286	289	292	295	295	293	287	279	270	
	TOTAL FC	KG/H	387	393	398	403	409	404	393	369	347	326	
8500	TAS	KT	282	285	288	291	295	295	293	287	280	272	
	TOTAL FC	KG/H	380	385	390	396	401	398	388	364	342	321	
8000	TAS	KT	281	284	287	291	294	295	293	288	281	273	
	TOTAL FC	KG/H	374	379	383	388	393	393	382	360	337	316	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

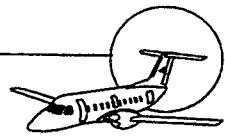
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 27000 FT

WEIGHT KG			ISA + °C									
			-20	-15	-10	-5	0	5	10	20	30	40
12000	TAS	KT	287	290	296	295	292	289	289	-	-	-
	TOTAL FC	KG/H	436	443	458	449	438	427	415	-	-	-
11500	TAS	KT	286	289	293	296	294	291	289	279	-	-
	TOTAL FC	KG/H	424	430	440	443	431	421	408	381	-	-
11000	TAS	KT	285	288	292	297	295	292	289	283	261	-
	TOTAL FC	KG/H	409	419	424	436	425	415	405	379	344	-
10500	TAS	KT	283	287	291	294	296	294	291	284	271	-
	TOTAL FC	KG/H	398	408	413	420	419	409	399	375	347	-
10000	TAS	KT	283	287	290	293	296	294	292	285	278	253
	TOTAL FC	KG/H	390	398	403	409	414	403	393	370	347	313
9500	TAS	KT	282	286	289	292	295	295	293	286	279	264
	TOTAL FC	KG/H	382	389	394	399	404	398	388	365	342	315
9000	TAS	KT	281	285	288	292	295	295	293	287	279	272
	TOTAL FC	KG/H	374	380	385	390	395	393	383	360	338	316
8500	TAS	KT	281	284	287	291	294	296	294	288	280	273
	TOTAL FC	KG/H	366	372	377	382	387	388	378	355	333	312
8000	TAS	KT	280	283	287	290	293	296	294	288	281	273
	TOTAL FC	KG/H	358	364	369	374	378	383	373	350	329	309


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

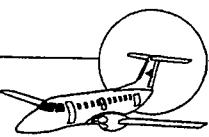
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 28000 FT

WEIGHT KG	ISA + °C											
	-20	-15	-10	-5	0	5	10	20	30	40		
12000 TAS KT 286 290 293 294 293 291 286 - - -	TOTAL FC KG/H 428 434 441 439 429 417 402 - - -											
11500 TAS KT 286 289 292 296 293 290 288 271 - - -	TOTAL FC KG/H 415 421 427 433 422 412 400 366 - - -											
11000 TAS KT 285 288 291 297 294 291 289 281 - - -	TOTAL FC KG/H 403 408 414 426 416 405 394 369 - - -											
10500 TAS KT 282 287 290 294 296 293 290 284 266 - -	TOTAL FC KG/H 388 397 403 409 410 399 389 366 334 - -											
10000 TAS KT 282 286 289 292 296 294 292 286 276 - -	TOTAL FC KG/H 378 386 391 397 402 394 384 362 337 - -											
9500 TAS KT 281 285 288 292 295 295 293 287 278 260 -	TOTAL FC KG/H 370 377 381 386 392 388 378 356 334 304 -											
9000 TAS KT 281 285 288 291 294 296 293 287 279 270 -	TOTAL FC KG/H 362 368 373 377 382 383 373 351 330 306 -											
8500 TAS KT 280 283 287 290 293 296 294 288 280 273 -	TOTAL FC KG/H 353 359 364 369 374 378 368 346 325 304 -											
8000 TAS KT 279 283 286 289 292 296 294 289 281 275 -	TOTAL FC KG/H 346 351 356 361 366 371 363 342 320 301 -											

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

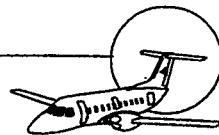
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 29000 FT

WEIGHT KG			ISA + °C										
			-20	-15	-10	-5	0	5	10	20	30	40	
12000	TAS	KT	286	289	293	293	291	289	278	-	-	-	
	TOTAL FC	KG/H	421	428	435	430	418	404	386	-	-	-	
11500	TAS	KT	285	288	292	294	293	290	288	-	-	-	
	TOTAL FC	KG/H	407	413	419	423	412	402	389	-	-	-	
11000	TAS	KT	284	287	291	295	293	291	289	275	-	-	
	TOTAL FC	KG/H	394	400	406	417	406	396	386	355	-	-	
10500	TAS	KT	282	286	289	293	295	292	290	285	-	-	
	TOTAL FC	KG/H	379	387	393	399	400	390	378	358	-	-	
10000	TAS	KT	281	285	289	292	296	294	291	286	270	-	
	TOTAL FC	KG/H	368	376	381	386	394	384	374	352	324	-	
9500	TAS	KT	281	284	288	291	294	295	292	287	279	-	
	TOTAL FC	KG/H	359	366	371	375	380	378	369	348	325	-	
9000	TAS	KT	280	284	287	290	293	295	293	288	280	265	
	TOTAL FC	KG/H	350	356	361	365	370	373	363	342	321	295	
8500	TAS	KT	279	283	286	289	292	296	294	288	281	274	
	TOTAL FC	KG/H	341	347	352	357	361	366	358	337	316	296	
8000	TAS	KT	278	282	285	288	291	295	294	289	282	274	
	TOTAL FC	KG/H	333	338	343	348	352	357	354	332	311	293	

17 MARCH 1999


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 30000 FT

WEIGHT KG			ISA + °C									
			-10	-5	0	5	10	15	20	25	30	40
12000	TAS	KT	293	296	292	282	-	-	-	-	-	-
	TOTAL FC	KG/H	427	419	407	389	-	-	-	-	-	-
11500	TAS	KT	292	293	293	291	280	-	-	-	-	-
	TOTAL FC	KG/H	413	414	404	390	374	-	-	-	-	-
11000	TAS	KT	290	294	293	292	290	281	-	-	-	-
	TOTAL FC	KG/H	398	407	398	387	376	360	-	-	-	-
10500	TAS	KT	289	295	294	293	290	288	279	-	-	-
	TOTAL FC	KG/H	384	400	391	381	371	361	344	-	-	-
10000	TAS	KT	288	291	296	293	291	289	286	277	-	-
	TOTAL FC	KG/H	372	378	384	374	364	355	344	329	-	-
9500	TAS	KT	287	290	293	294	292	290	287	283	274	-
	TOTAL FC	KG/H	360	365	370	369	359	350	339	327	314	-
9000	TAS	KT	286	289	293	295	293	291	288	284	280	258
	TOTAL FC	KG/H	350	355	359	363	354	344	334	324	313	283
8500	TAS	KT	285	288	291	295	294	292	289	285	282	271
	TOTAL FC	KG/H	340	345	349	354	349	339	329	318	309	286
8000	TAS	KT	284	288	291	294	294	292	289	285	282	275
	TOTAL FC	KG/H	331	336	341	345	343	335	324	313	303	284

17 MARCH 1999



EMBRAER
EMB120 Brasilia
**SUPPLEMENTARY PERFORMANCE
MANUAL**

FLIGHT PLANNING

FLIGHT PLANNING

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

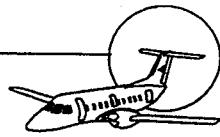
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 31000 FT

WEIGHT KG			ISA + °C									
			-10	-5	0	5	10	15	20	25	30	40
12000	TAS	KT	294	292	285	-	-	-	-	-	-	-
	TOTAL FC	KG/H	406	408	392	-	-	-	-	-	-	-
11500	TAS	KT	292	294	291	283	-	-	-	-	-	-
	TOTAL FC	KG/H	393	401	392	376	-	-	-	-	-	-
11000	TAS	KT	291	292	293	291	284	-	-	-	-	-
	TOTAL FC	KG/H	382	389	389	376	361	-	-	-	-	-
10500	TAS	KT	289	292	294	291	291	284	269	-	-	-
	TOTAL FC	KG/H	368	374	381	373	361	348	330	-	-	-
10000	TAS	KT	288	291	293	294	292	290	282	269	-	-
	TOTAL FC	KG/H	359	363	370	366	357	348	333	316	-	-
9500	TAS	KT	287	290	293	294	292	290	287	281	268	-
	TOTAL FC	KG/H	350	355	364	362	351	342	331	319	302	-
9000	TAS	KT	286	289	292	295	292	290	287	282	278	-
	TOTAL FC	KG/H	341	346	350	353	345	336	327	316	304	-
8500	TAS	KT	285	288	291	294	293	291	288	284	282	266
	TOTAL FC	KG/H	331	335	340	344	339	330	321	311	300	275
8000	TAS	KT	284	287	290	292	294	292	289	286	284	273
	TOTAL FC	KG/H	321	325	329	333	334	325	315	306	295	275


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 32000 FT

WEIGHT KG			ISA + °C									
			-10	-5	0	5	10	15	20	25	30	40
12000	TAS	KT	292	285	-	-	-	-	-	-	-	-
	TOTAL FC	KG/H	407	391	-	-	-	-	-	-	-	-
11500	TAS	KT	291	291	286	-	-	-	-	-	-	-
	TOTAL FC	KG/H	387	393	377	-	-	-	-	-	-	-
11000	TAS	KT	291	292	293	286	-	-	-	-	-	-
	TOTAL FC	KG/H	375	381	378	363	-	-	-	-	-	-
10500	TAS	KT	289	293	295	292	287	275	-	-	-	-
	TOTAL FC	KG/H	363	371	373	362	349	333	-	-	-	-
10000	TAS	KT	288	291	295	294	292	287	275	-	-	-
	TOTAL FC	KG/H	354	358	364	358	347	337	320	-	-	-
9500	TAS	KT	287	290	294	293	291	289	287	274	-	-
	TOTAL FC	KG/H	345	350	353	352	342	333	323	306	-	-
9000	TAS	KT	286	289	292	294	292	289	286	283	272	-
	TOTAL FC	KG/H	333	338	343	345	336	327	317	307	292	-
8500	TAS	KT	283	288	291	294	293	291	287	284	281	257
	TOTAL FC	KG/H	319	326	331	335	330	322	313	303	293	264
8000	TAS	KT	283	287	290	293	294	293	290	285	282	270
	TOTAL FC	KG/H	310	316	320	325	324	316	307	297	288	266

17 MARCH 1999

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 5000 FT

WEIGHT KG			ISA + °C											
			-60	-40	-30	-20	-10	0	10	20	30	40		
12000	TAS	KT	173	182	185	188	192	195	198	200	187	187	-	-
	TOTAL	FC	KG/H	342	359	365	371	379	385	391	396	367	-	-
11500	TAS	KT	171	179	183	186	189	193	196	199	191	191	-	-
	TOTAL	FC	KG/H	330	345	353	358	364	372	378	384	369	-	-
11000	TAS	KT	169	177	181	184	187	191	194	197	196	196	167	322
	TOTAL	FC	KG/H	319	333	341	346	352	360	365	371	370	-	-
10500	TAS	KT	167	174	178	182	185	188	191	195	197	197	176	323
	TOTAL	FC	KG/H	308	320	327	335	340	346	351	359	363	-	-
10000	TAS	KT	165	172	176	179	183	186	189	192	196	196	182	323
	TOTAL	FC	KG/H	297	309	316	322	329	334	340	345	353	-	-
9500	TAS	KT	163	170	173	177	180	184	187	190	193	193	185	325
	TOTAL	FC	KG/H	287	299	304	311	316	323	329	334	339	-	-
9000	TAS	KT	161	168	171	175	178	181	184	188	191	191	189	325
	TOTAL	FC	KG/H	278	289	294	301	306	311	316	323	328	-	-
8500	TAS	KT	160	166	169	173	176	179	182	185	188	188	191	321
	TOTAL	FC	KG/H	270	280	284	291	296	301	306	311	316	-	-
8000	TAS	KT	157	165	167	170	174	177	180	183	186	186	189	311
	TOTAL	FC	KG/H	260	272	275	280	286	291	296	301	306	-	-



FLIGHT PLANNING

ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

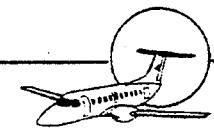
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 6000 FT

			ISA + °C											
			WEIGHT KG											
			-60	-40	-30	-20	-10	0	10	20	30	40		
12000	TAS	KT	175	183	186	190	193	196	199	201	185	-	-	-
	TOTAL	FC	KG/H	340	355	361	369	375	381	387	392	357	-	-
11500	TAS	KT	173	180	184	188	191	194	197	200	188	-	-	-
	TOTAL	FC	KG/H	328	341	349	356	362	368	374	380	359	-	-
11000	TAS	KT	170	178	182	185	188	192	195	198	195	-	-	-
	TOTAL	FC	KG/H	315	329	337	342	348	355	361	367	362	-	-
10500	TAS	KT	168	175	179	183	186	189	193	196	197	174	-	-
	TOTAL	FC	KG/H	304	316	323	330	336	341	349	354	356	315	-
10000	TAS	KT	166	173	177	180	184	187	190	194	196	180	-	-
	TOTAL	FC	KG/H	293	305	312	317	324	329	335	342	346	316	-
9500	TAS	KT	163	171	174	178	181	185	188	191	194	184	-	-
	TOTAL	FC	KG/H	281	294	299	306	311	318	323	329	334	317	-
9000	TAS	KT	161	169	172	176	179	182	185	189	192	189	-	-
	TOTAL	FC	KG/H	271	284	289	296	301	306	311	318	323	318	-
8500	TAS	KT	160	166	170	173	176	180	183	186	189	191	-	-
	TOTAL	FC	KG/H	264	273	279	284	289	295	300	305	310	314	-
8000	TAS	KT	158	165	168	171	174	178	180	184	187	190	-	-
	TOTAL	FC	KG/H	255	265	270	274	279	286	289	295	300	305	-

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

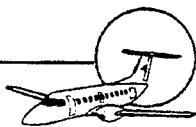
NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 7000 FT

WEIGHT KG			ISA + °C											
			-60	-40	-30	-20	-10	0	10	20	30	40		
12000	TAS	KT	177	184	188	191	194	197	201	202	181	181	-	-
	TOTAL	FC	KG/H	339	352	359	365	371	377	386	388	348		
11500	TAS	KT	174	182	186	189	192	195	198	201	188	188	-	-
	TOTAL	FC	KG/H	325	339	347	352	358	364	370	376	349		
11000	TAS	KT	171	179	183	186	190	193	196	199	193	193	-	-
	TOTAL	FC	KG/H	312	326	333	338	345	351	357	362	352		
10500	TAS	KT	169	177	181	184	187	191	194	197	197	171	-	-
	TOTAL	FC	KG/H	300	314	321	326	331	338	344	350	350	307	
10000	TAS	KT	167	174	178	182	185	188	191	195	197	179	-	-
	TOTAL	FC	KG/H	289	301	308	314	320	325	330	337	341	308	
9500	TAS	KT	164	172	175	179	183	186	189	192	196	183	-	-
	TOTAL	FC	KG/H	277	290	295	302	308	313	319	324	331	310	
9000	TAS	KT	162	169	173	176	180	183	187	190	192	188	-	-
	TOTAL	FC	KG/H	267	278	284	289	296	301	308	313	316	310	
8500	TAS	KT	160	167	171	174	177	181	184	187	190	192	-	-
	TOTAL	FC	KG/H	258	268	275	279	284	290	295	300	305	308	
8000	TAS	KT	158	165	168	172	175	178	181	184	188	190	-	-
	TOTAL	FC	KG/H	249	259	263	269	274	279	284	288	295	298	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ONE ENGINE INOPERATIVE
PW118A ENGINES
LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 8000 FT

				ISA + °C										
				-60	-40	-30	-20	-10	0	10	20	30	40	
WEIGHT		KG												
12000	TAS	KT	179	186	189	193	196	199	202	199	-	-	-	-
	TOTAL	FC	KG/H	338	351	356	364	369	376	382	377	-	-	-
11500	TAS	KT	176	183	187	190	194	196	200	202	184	-	-	-
	TOTAL	FC	KG/H	324	336	343	349	356	360	368	372	339	-	-
11000	TAS	KT	173	181	185	188	191	195	197	201	189	-	-	-
	TOTAL	FC	KG/H	310	324	331	336	341	349	353	360	340	-	-
10500	TAS	KT	170	178	182	185	189	192	195	198	196	-	-	-
	TOTAL	FC	KG/H	297	310	317	322	329	334	340	345	342	-	-
10000	TAS	KT	167	175	179	183	186	189	193	196	197	177	-	-
	TOTAL	FC	KG/H	284	297	304	310	315	321	328	333	335	300	-
9500	TAS	KT	165	173	176	180	184	187	190	194	197	183	-	-
	TOTAL	FC	KG/H	273	286	291	297	304	309	314	321	326	301	-
9000	TAS	KT	163	170	174	177	181	185	188	191	194	187	-	-
	TOTAL	FC	KG/H	263	274	280	285	291	298	303	308	313	302	-
8500	TAS	KT	161	168	171	175	178	182	185	188	191	192	-	-
	TOTAL	FC	KG/H	254	264	269	275	279	286	290	295	300	292	-
8000	TAS	KT	159	166	169	172	176	179	182	186	189	191	-	-
	TOTAL	FC	KG/H	245	255	259	263	269	274	278	285	290	293	-

20 NOVEMBER 1992



EMBRAER
EMB120 Brasilia

FLIGHT PLANNING

SUPPLEMENTARY PERFORMANCE
MANUAL

FLIGHT PLANNING
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 9000 FT

WEIGHT KG			ISA + °C											
			-60	-40	-30	-20	-10	0	10	20	30	40		
12000	TAS	KT	180	187	191	194	197	201	203	196	-	-		
	TOTAL FC	KG/H	335	348	355	361	367	375	379	367				
11500	TAS	KT	178	185	189	192	195	198	202	203	180	-	-	
	TOTAL FC	KG/H	323	335	342	347	353	359	367	369	330			
11000	TAS	KT	175	183	186	189	193	195	199	202	189	-	-	
	TOTAL FC	KG/H	309	322	327	333	340	343	351	357	331			
10500	TAS	KT	171	180	183	187	190	194	196	199	194	-	-	
	TOTAL FC	KG/H	293	308	313	320	325	332	336	342	334			
10000	TAS	KT	169	177	181	184	187	191	195	197	198	174		
	TOTAL FC	KG/H	282	295	302	306	311	318	325	329	331	291		
9500	TAS	KT	166	174	178	182	185	188	191	195	197	181		
	TOTAL FC	KG/H	270	282	289	295	300	305	310	316	320	292		
9000	TAS	KT	164	171	175	179	182	186	189	192	195	186		
	TOTAL FC	KG/H	260	270	276	283	287	293	298	303	308	294		
8500	TAS	KT	161	169	173	176	179	183	186	189	192	191		
	TOTAL FC	KG/H	248	260	266	270	275	281	286	290	295	294		
8000	TAS	KT	159	166	170	173	177	180	183	187	190	192		
	TOTAL FC	KG/H	239	249	254	259	265	269	274	280	284	288		


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ONE ENGINE INOPERATIVE
PW118A ENGINES
LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

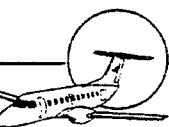
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 10000 FT

WEIGHT KG	ISA + °C											
	-50	-40	-30	-20	-10	0	10	20	30	40		
12000 TAS TOTAL FC KG/H	186 342	189 347	193 354	196 360	199 366	202 372	203 374	194 356	- -	- -		
11500 TAS TOTAL FC KG/H	183 327	187 334	190 339	194 346	197 352	200 358	202 362	199 357	- -	- -		
11000 TAS TOTAL FC KG/H	180 312	184 319	188 326	191 331	194 336	197 342	201 349	202 352	185 322	- -		
10500 TAS TOTAL FC KG/H	178 300	182 307	185 312	188 317	192 323	195 329	198 334	201 340	190 322	- -		
10000 TAS TOTAL FC KG/H	174 285	178 292	182 298	185 303	189 309	192 315	196 321	198 325	197 324	- -		
9500 TAS TOTAL FC KG/H	171 273	175 279	179 285	183 291	186 296	189 301	193 307	196 312	198 316	178 284		
9000 TAS TOTAL FC KG/H	169 262	172 266	176 272	180 279	184 285	187 289	190 294	193 299	197 305	186 285		
8500 TAS TOTAL FC KG/H	166 250	170 256	173 261	177 266	181 272	184 277	188 283	190 286	193 291	191 288		
8000 TAS TOTAL FC KG/H	163 239	167 245	171 250	174 255	178 260	181 265	185 271	188 275	191 280	192 281		

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

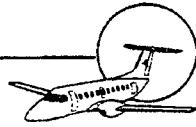
NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 11000 FT

WEIGHT KG			ISA + °C											
			-50	-40	-30	-20	-10	0	10	20	30	40		
12000	TAS TOTAL	FC	KT KG/H	187 339	191 347	195 354	198 360	201 365	203 369	202 369	189 345	-	-	-
11500	TAS TOTAL	FC	KT KG/H	185 326	188 331	192 338	195 343	199 351	201 355	203 359	196 348	-	-	-
11000	TAS TOTAL	FC	KT KG/H	182 311	186 318	189 323	193 330	195 333	199 341	202 347	203 349	181 313	-	-
10500	TAS TOTAL	FC	KT KG/H	179 298	183 304	186 309	190 315	193 320	196 325	200 333	202 337	190 314	-	-
10000	TAS TOTAL	FC	KT KG/H	176 284	180 290	184 296	187 301	190 306	194 313	196 316	200 323	195 315	-	-
9500	TAS TOTAL	FC	KT KG/H	172 269	177 277	181 283	184 288	188 294	191 299	194 304	197 309	198 310	175 276	184
9000	TAS TOTAL	FC	KT KG/H	170 259	173 263	177 269	182 277	185 281	188 285	192 292	195 296	198 301	184 277	184
8500	TAS TOTAL	FC	KT KG/H	167 247	171 252	175 258	178 263	182 268	186 274	189 279	192 283	195 288	188 278	188
8000	TAS TOTAL	FC	KT KG/H	164 236	168 241	172 247	175 251	179 256	182 261	186 266	189 271	192 275	194 278	194


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ONE ENGINE INOPERATIVE
PW118A ENGINES
LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 12000 FT

WEIGHT KG	ISA + °C											
	-50	-40	-30	-20	-10	0	10	20	30	40		
12000 TAS TOTAL FC KT KG/H	189 339	193 346	197 353	199 357	202 363	203 366	200 363	- -	- -	- -		
11500 TAS TOTAL FC KT KG/H	186 324	190 331	194 337	197 343	200 349	202 352	203 355	193 337	- -	- -		
11000 TAS TOTAL FC KT KG/H	184 311	187 316	191 322	194 327	198 334	201 340	202 342	200 340	- -	- -		
10500 TAS TOTAL FC KT KG/H	181 296	185 303	188 308	191 312	195 319	198 324	201 330	202 332	186 305	- -		
10000 TAS TOTAL FC KT KG/H	178 283	182 289	185 294	189 300	192 305	195 309	198 314	202 321	193 308	- -		
9500 TAS TOTAL FC KT KG/H	174 268	179 276	182 280	185 284	189 291	192 295	196 302	198 305	200 309	- -		
9000 TAS TOTAL FC KT KG/H	171 256	175 261	179 267	183 273	186 277	189 282	193 288	196 293	198 296	181 269		
8500 TAS TOTAL FC KT KG/H	168 244	172 249	176 255	180 260	184 266	186 269	190 275	193 279	197 285	187 271		
8000 TAS TOTAL FC KT KG/H	165 232	169 238	173 243	176 247	180 253	184 258	187 262	190 267	193 271	194 273		

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION
NP: 100%
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

ALTITUDE: 13000 FT

WEIGHT KG			ISA + °C											
			-50	-40	-30	-20	-10	0	10	20	30	40		
12000	TAS	KT	190	194	197	200	203	204	195	-	-	-	-	
	TOTAL FC	KG/H	337	344	350	356	362	365	353	-	-	-	-	
11500	TAS	KT	188	192	195	198	201	203	203	187	-	-	-	
	TOTAL FC	KG/H	323	330	335	341	346	351	352	326	-	-	-	
11000	TAS	KT	185	189	193	196	200	201	204	194	-	-	-	
	TOTAL FC	KG/H	308	315	322	327	334	336	342	327	-	-	-	
10500	TAS	KT	183	186	190	193	196	200	202	203	-	-	-	
	TOTAL FC	KG/H	296	300	307	312	316	323	327	329	-	-	-	
10000	TAS	KT	180	183	187	190	194	196	200	203	191	-	-	
	TOTAL FC	KG/H	282	286	292	297	303	306	313	319	297	-	-	
9500	TAS	KT	176	180	184	187	190	194	196	201	197	-	-	
	TOTAL FC	KG/H	267	273	278	283	288	294	297	305	299	-	-	
9000	TAS	KT	173	177	181	184	187	191	194	197	199	178	261	
	TOTAL FC	KG/H	254	260	265	270	274	280	284	289	292	292	261	
8500	TAS	KT	169	173	177	181	185	188	191	195	197	186	262	
	TOTAL FC	KG/H	240	246	252	257	263	267	271	277	280	280	262	
8000	TAS	KT	166	170	174	178	182	185	188	191	195	191	263	
	TOTAL FC	KG/H	229	234	239	245	250	254	259	263	268	263	263	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ONE ENGINE INOPERATIVE
PW118A ENGINES
LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 14000 FT

			ISA + °C											
			-50	-40	-30	-20	-10	0	10	20	30	40		
WEIGHT		KG												
12000	TAS	KT	192	195	199	202	203	203	190	-	-	-		
	TOTAL	FC	KG/H	337	342	350	356	359	361	342	-	-	-	
11500	TAS	KT	190	193	197	200	202	204	199	-	-	-		
	TOTAL	FC	KG/H	323	328	335	341	345	349	344	-	-	-	
11000	TAS	KT	187	191	195	198	201	203	202	192	-	-		
	TOTAL	FC	KG/H	308	314	321	326	332	335	318	-	-	-	
10500	TAS	KT	184	188	192	195	198	201	203	200	-	-		
	TOTAL	FC	KG/H	293	300	306	311	316	321	325	321	-	-	
10000	TAS	KT	181	185	189	192	195	199	202	202	187	-		
	TOTAL	FC	KG/H	279	285	291	296	301	307	312	313	289	-	
9500	TAS	KT	178	182	186	189	192	195	199	202	193	-		
	TOTAL	FC	KG/H	266	272	277	282	286	291	297	302	289	-	
9000	TAS	KT	175	179	182	186	189	192	196	198	200	173		
	TOTAL	FC	KG/H	253	258	262	268	272	277	283	286	289	253	
8500	TAS	KT	171	175	179	183	186	189	193	196	199	184		
	TOTAL	FC	KG/H	239	244	250	255	259	263	274	278	255	255	
8000	TAS	KT	167	172	175	179	183	186	189	193	196	189		
	TOTAL	FC	KG/H	226	233	236	242	247	251	255	261	265	255	

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

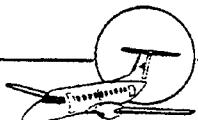
NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 15000 FT

WEIGHT KG			ISA + °C											
			-40	-30	-20	-10	-5	0	10	20	30	40		
12000	TAS TOTAL	FC	KT KG/H	196 341	200 349	202 354	204 360	203 359	200 356	-	-	-	-	-
11500	TAS TOTAL	FC	KT KG/H	195 328	198 334	201 340	203 344	203 345	203 346	194 333	-	-	-	-
11000	TAS TOTAL	FC	KT KG/H	193 314	196 319	199 325	202 330	203 332	203 332	203 335	-	-	-	-
10500	TAS TOTAL	FC	KT KG/H	190 299	193 304	197 310	200 316	201 317	202 319	203 321	194 310	-	-	-
10000	TAS TOTAL	FC	KT KG/H	187 285	190 289	194 295	197 300	199 303	200 305	202 308	202 309	182 280	-	-
9500	TAS TOTAL	FC	KT KG/H	184 271	187 275	191 281	194 285	196 288	197 290	200 295	203 299	192 281	-	-
9000	TAS TOTAL	FC	KT KG/H	180 256	184 261	187 265	191 271	192 273	194 275	197 280	201 286	198 282	-	-
8500	TAS TOTAL	FC	KT KG/H	177 243	181 248	184 252	188 258	189 259	191 262	194 266	197 270	199 274	180 247	-
8000	TAS TOTAL	FC	KT KG/H	173 230	177 235	181 240	184 244	186 246	187 247	191 253	194 257	197 261	187 249	-


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ONE ENGINE INOPERATIVE
PW118A ENGINES
LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 16000 FT

			ISA + °C											
			-40	-30	-20	-10	-5	0	10	20	30	40		
WEIGHT	KG													
12000	TAS	KT	198	202	204	203	202	193	-	-	-	-	-	-
	TOTAL	FC	KG/H	342	351	356	357	358	344	-	-	-	-	-
11500	TAS	KT	196	200	202	204	204	204	-	-	-	-	-	-
	TOTAL	FC	KG/H	327	335	339	344	345	347	-	-	-	-	-
11000	TAS	KT	194	197	200	203	203	204	197	-	-	-	-	-
	TOTAL	FC	KG/H	313	318	323	329	330	332	324	-	-	-	-
10500	TAS	KT	191	195	198	200	202	203	203	190	-	-	-	-
	TOTAL	FC	KG/H	297	303	309	312	316	318	319	299	-	-	-
10000	TAS	KT	188	192	196	199	200	201	204	199	-	-	-	-
	TOTAL	FC	KG/H	282	289	295	300	301	303	308	302	-	-	-
9500	TAS	KT	185	189	193	196	197	199	202	202	188	-	-	-
	TOTAL	FC	KG/H	268	274	280	284	286	289	294	273	-	-	-
9000	TAS	KT	182	186	189	193	194	195	199	202	196	-	-	-
	TOTAL	FC	KG/H	255	260	264	270	271	273	279	283	276	-	-
8500	TAS	KT	179	182	186	189	191	193	196	198	201	175	-	-
	TOTAL	FC	KG/H	242	246	251	255	258	260	265	268	272	239	-
8000	TAS	KT	174	179	183	185	187	189	192	196	198	186	-	-
	TOTAL	FC	KG/H	227	233	238	241	243	246	250	255	258	241	-

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 17000 FT

WEIGHT KG	TAS TOTAL FC	KT KG/H	ISA + °C									
			-40	-30	-20	-10	-5	0	10	20	30	40
12000	TAS TOTAL FC	KT KG/H	200 344	203 351	204 355	203 359	194 345	-	-	-	-	-
11500	TAS TOTAL FC	KT KG/H	197 326	201 334	203 339	204 343	203 343	195 334	-	-	-	-
11000	TAS TOTAL FC	KT KG/H	195 311	198 317	202 324	204 329	204 330	203 329	-	-	-	-
10500	TAS TOTAL FC	KT KG/H	193 297	196 302	200 309	202 313	204 316	203 315	201 315	-	-	-
10000	TAS TOTAL FC	KT KG/H	190 282	194 288	197 293	200 298	202 301	203 303	203 304	195 291	-	-
9500	TAS TOTAL FC	KT KG/H	187 268	191 274	194 278	197 282	199 285	201 289	202 290	202 291	-	-
9000	TAS TOTAL FC	KT KG/H	184 254	187 258	191 264	194 268	196 271	198 274	200 276	203 281	193 266	-
8500	TAS TOTAL FC	KT KG/H	180 239	184 244	188 250	191 254	192 255	194 258	197 262	201 268	200 267	-
8000	TAS TOTAL FC	KT KG/H	176 226	181 232	184 236	188 241	189 242	190 243	194 248	197 252	200 257	183 233


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**FLIGHT PLANNING
ONE ENGINE INOPERATIVE**

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 18000 FT

WEIGHT KG				ISA + °C									
				-40	-30	-20	-10	-5	0	10	20	30	40
12000	TAS	KT	KG/H	201	204	204	-	-	-	-	-	-	-
	TOTAL	FC	KG/H	344	352	356	-	-	-	-	-	-	-
11500	TAS	KT	KG/H	199	202	204	203	197	-	-	-	-	-
	TOTAL	FC	KG/H	328	334	340	342	336	-	-	-	-	-
11000	TAS	KT	KG/H	197	200	203	204	203	199	-	-	-	-
	TOTAL	FC	KG/H	312	318	324	328	327	324	-	-	-	-
10500	TAS	KT	KG/H	194	197	201	204	203	203	194	-	-	-
	TOTAL	FC	KG/H	296	301	308	314	313	314	303	-	-	-
10000	TAS	KT	KG/H	191	196	198	202	202	203	203	188	-	-
	TOTAL	FC	KG/H	281	288	291	298	298	300	302	281	-	-
9500	TAS	KT	KG/H	189	192	196	199	200	201	204	199	-	-
	TOTAL	FC	KG/H	267	272	277	282	284	285	290	285	-	-
9000	TAS	KT	KG/H	186	189	193	196	198	199	202	202	189	-
	TOTAL	FC	KG/H	253	257	263	267	270	271	276	276	257	-
8500	TAS	KT	KG/H	182	186	189	193	195	196	200	202	196	-
	TOTAL	FC	KG/H	239	244	248	253	256	257	263	265	258	-
8000	TAS	KT	KG/H	178	182	186	189	191	193	195	198	200	177
	TOTAL	FC	KG/H	224	229	234	238	241	243	246	250	253	226

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SUPPLEMENTARY PERFORMANCE
MANUALFLIGHT PLANNING
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 19000 FT

WEIGHT KG	TAS TOTAL FC	KT KG/H	ISA + °C									
			-40	-30	-20	-10	-5	0	10	20	30	40
12000	TAS TOTAL FC	KT KG/H	203 347	205 354	204 359	-	-	-	-	-	-	-
11500	TAS TOTAL FC	KT KG/H	201 330	203 335	204 340	197 336	-	-	-	-	-	-
11000	TAS TOTAL FC	KT KG/H	198 312	201 318	205 326	203 326	201 326	-	-	-	-	-
10500	TAS TOTAL FC	KT KG/H	195 295	200 304	202 308	203 311	203 312	204 316	-	-	-	-
10000	TAS TOTAL FC	KT KG/H	193 281	197 287	200 292	202 296	203 298	204 300	197 293	-	-	-
9500	TAS TOTAL FC	KT KG/H	191 267	194 271	197 276	200 281	201 282	203 286	202 285	193 274	-	-
9000	TAS TOTAL FC	KT KG/H	187 251	191 257	194 261	198 267	199 268	201 271	202 273	202 274	-	-
8500	TAS TOTAL FC	KT KG/H	184 238	188 243	192 248	195 252	196 253	198 256	201 260	203 263	194 250	-
8000	TAS TOTAL FC	KT KG/H	180 224	184 228	188 233	191 237	192 238	194 241	197 245	201 250	201 250	-


**SUPPLEMENTARY PERFORMANCE
MANUAL**
FLIGHT PLANNING
ONE ENGINE INOPERATIVE
PW118A ENGINES
LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 20000 FT

				ISA + °C									
				-30	-20	-15	-10	-5	0	10	20	30	40
WEIGHT	KG												
12000	TAS	KT	KG/H	204	-	-	-	-	-	-	-	-	-
	TOTAL	FC	KG/H	354									
11500	TAS	KT	KG/H	205	204	197	-	-	-	-	-	-	-
	TOTAL	FC	KG/H	339	342	336	-	-	-	-	-	-	-
11000	TAS	KT	KG/H	203	204	203	200	-	-	-	-	-	-
	TOTAL	FC	KG/H	320	324	325	324	-	-	-	-	-	-
10500	TAS	KT	KG/H	201	203	204	204	203	195	-	-	-	-
	TOTAL	FC	KG/H	303	308	311	312	313	304	-	-	-	-
10000	TAS	KT	KG/H	198	202	202	203	204	203	191	-	-	-
	TOTAL	FC	KG/H	286	293	293	296	298	298	283	-	-	-
9500	TAS	KT	KG/H	195	199	200	202	203	203	202	-	-	-
	TOTAL	FC	KG/H	270	276	278	281	283	284	284	-	-	-
9000	TAS	KT	KG/H	193	197	198	199	201	202	203	197	-	-
	TOTAL	FC	KG/H	257	262	264	265	268	270	272	266	-	-
8500	TAS	KT	KG/H	189	193	195	196	198	200	202	202	189	-
	TOTAL	FC	KG/H	241	246	249	250	253	256	259	259	241	-
8000	TAS	KT	KG/H	186	189	191	193	194	196	199	202	198	-
	TOTAL	FC	KG/H	228	231	234	236	237	240	244	248	243	-

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 5000 FT

WEIGHT KG	IAS KT F FLOW KG/H/ENG	TORQUE % F FLOW KG/H/ENG	IOAT (°C)									
			-50	-30	-20	-10	0	10	20	30	40	50
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	217 52 229	216 54 239	217 55 244	217 56 249	217 57 253	216 58 256	215 58 261	215 59 265	215 60 269	214 61 273
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	216 51 227	214 52 235	215 54 240	215 55 245	215 55 248	214 56 253	213 57 256	213 57 260	213 58 265	213 59 268
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	216 50 225	212 51 230	213 52 236	214 53 241	213 54 245	213 54 248	212 55 253	212 56 256	212 57 260	212 57 265
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	215 49 223	211 49 228	211 50 232	211 51 237	212 52 242	211 53 245	210 53 249	210 54 252	210 55 256	210 56 260
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	214 48 221	210 48 225	210 49 229	210 50 233	210 51 238	210 52 243	209 52 246	209 53 249	208 53 252	208 54 256
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	212 47 217	209 47 223	208 47 225	208 48 229	208 49 235	209 50 239	209 51 243	208 51 246	207 52 249	207 52 252
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	210 45 214	208 46 220	207 46 223	206 47 227	207 48 231	207 49 235	207 50 239	207 50 243	206 51 246	206 51 249
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	207 44 209	206 45 218	205 45 221	205 46 224	205 46 228	205 47 232	205 48 237	205 49 240	205 50 244	205 50 247
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	204 42 205	205 44 215	204 44 217	203 44 221	203 45 224	203 46 228	204 47 233	204 48 238	204 48 242	203 49 243

**CRUISE CONTROL****ALL ENGINES OPERATING****PW118A ENGINES****LONG RANGE CRUISE**

CRUISE CONFIGURATION

NP: 85%

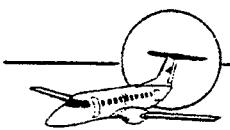
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 6000 FT

WEIGHT KG	IAS KT F FLOW	TORQUE % KG/H/ENG	IOAT (°C)									
			-50	-30	-20	-10	0	10	20	30	40	50
12000	IAS KT F FLOW	TORQUE % KG/H/ENG	214 51 223	214 53 234	214 55 238	214 56 244	214 57 248	213 57 251	213 58 254	213 59 259	212 60 263	212 60 266
11500	IAS KT F FLOW	TORQUE % KG/H/ENG	213 50 220	212 52 229	213 53 235	213 54 239	212 55 243	211 55 246	211 56 251	211 57 255	211 58 259	210 58 262
11000	IAS KT F FLOW	TORQUE % KG/H/ENG	212 49 219	210 50 226	211 51 231	211 52 236	211 53 239	210 54 242	209 54 246	209 55 250	209 56 253	209 57 259
10500	IAS KT F FLOW	TORQUE % KG/H/ENG	211 48 216	208 48 222	209 50 227	209 51 231	209 52 236	209 52 239	207 52 242	207 53 245	208 54 250	207 55 253
10000	IAS KT F FLOW	TORQUE % KG/H/ENG	210 47 214	207 47 219	207 48 223	207 49 228	208 50 232	208 51 236	207 51 239	206 52 242	206 52 246	206 53 250
9500	IAS KT F FLOW	TORQUE % KG/H/ENG	209 46 211	206 46 216	205 46 219	205 47 224	206 49 228	206 49 232	205 50 235	205 50 239	204 51 242	204 52 246
9000	IAS KT F FLOW	TORQUE % KG/H/ENG	208 45 209	205 45 214	204 45 217	203 46 219	204 47 225	204 48 230	204 49 233	204 50 236	203 50 239	203 50 242
8500	IAS KT F FLOW	TORQUE % KG/H/ENG	205 43 204	204 44 211	203 44 214	202 45 217	202 45 221	203 47 226	203 47 230	203 48 233	202 49 237	201 49 239
8000	IAS KT F FLOW	TORQUE % KG/H/ENG	202 41 200	202 43 208	201 43 211	201 44 215	200 44 218	200 45 222	201 46 227	201 47 231	201 47 234	201 48 236

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

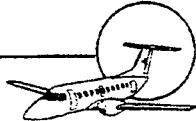
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 7000 FT

WEIGHT KG	IOAT (°C)											
			-50	-30	-20	-10	0	10	20	30	40	50
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	211 51 219	212 53 229	212 54 234	212 55 238	211 56 242	211 57 246	211 58 250	210 58 253	210 59 256	209 60 261
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	210 49 216	209 51 224	210 52 229	210 53 234	210 54 237	209 55 241	209 56 245	209 57 250	208 57 253	208 58 256
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	209 48 213	208 50 221	208 51 225	209 52 230	208 52 234	207 53 237	207 54 240	207 55 244	207 56 249	206 56 251
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	208 47 210	206 48 216	207 49 222	207 50 226	207 51 230	206 52 234	205 52 237	205 53 240	205 53 244	205 54 248
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	207 46 208	204 46 213	204 47 217	205 49 222	205 49 226	204 50 230	204 50 233	203 51 236	204 52 239	203 53 243
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	207 45 205	203 45 210	202 46 213	203 47 218	204 48 223	203 48 226	202 49 229	202 49 232	202 50 235	202 51 239
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	205 44 203	202 44 208	201 44 211	201 45 214	202 46 219	202 47 223	201 48 226	201 48 229	200 49 232	200 49 235
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	203 42 199	201 43 205	200 43 208	199 44 211	199 45 215	200 46 220	200 47 223	200 47 226	199 47 229	199 48 232
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	200 41 195	199 42 202	198 42 205	198 43 209	198 43 212	198 44 216	199 45 220	199 46 224	198 46 226	197 47 229


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 8000 FT

WEIGHT KG	IOAT (°C)											
	-50	-30	-20	-10	0	10	20	30	40	50		
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	208 50 214	210 53 224	210 54 229	210 55 233	209 55 237	209 56 241	209 57 246	208 58 249	207 59 251	207 60 256
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	207 48 210	208 51 220	208 52 225	208 53 229	207 54 232	207 54 236	206 55 240	207 56 244	206 57 248	205 57 251
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	206 47 207	205 49 216	206 50 220	206 51 224	206 52 228	205 53 232	204 53 235	204 54 239	204 55 243	204 56 246
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	205 46 204	203 47 211	205 49 216	204 49 220	204 50 224	203 51 228	203 52 231	203 52 234	203 53 238	202 54 241
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	204 45 202	202 46 207	202 47 212	203 48 217	202 49 221	202 49 223	201 49 226	201 50 230	201 51 234	201 52 238
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	203 44 200	200 44 205	200 45 208	201 46 212	201 47 217	200 48 220	199 48 222	199 48 226	199 49 230	199 50 234
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	202 43 197	199 43 201	199 44 205	199 45 209	199 46 213	199 47 217	198 47 220	198 47 222	198 48 226	198 48 230
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	201 42 194	198 42 199	197 42 201	197 43 206	197 44 210	197 45 213	197 46 217	197 46 220	196 46 222	196 47 226
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	198 40 191	197 41 196	196 41 199	195 42 202	196 43 206	196 43 210	196 44 214	196 45 217	195 45 220	195 46 222

20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

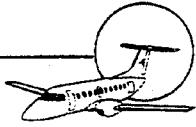
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 9000 FT

WEIGHT KG	IOAT (°C)										
	-50	-30	-20	-10	0	10	20	30	40	50	
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	206 50 209	208 53 220	208 54 225	207 54 229	206 55 232	207 56 237	206 57 241	205 58 244	205 58 247
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	204 48 205	206 51 216	205 51 219	206 53 224	205 53 228	204 54 231	204 55 235	204 56 239	203 56 242
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	203 47 202	204 49 211	204 50 216	204 51 220	203 51 223	203 52 226	202 53 230	202 54 234	201 55 237
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	202 45 199	201 47 207	202 48 212	202 49 215	201 50 219	201 50 222	201 51 226	200 52 229	200 52 232
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	201 44 196	200 45 203	200 46 208	200 47 211	200 48 215	199 48 218	198 49 220	199 50 225	199 51 229
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	200 43 193	197 44 199	198 45 204	198 46 207	199 47 211	198 47 215	197 47 216	197 48 220	197 49 224
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	199 42 191	196 42 195	196 43 199	197 44 204	197 45 207	197 46 211	196 46 213	195 46 216	195 47 220
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	198 41 189	195 41 193	194 41 195	194 42 200	195 43 204	195 44 207	194 45 211	194 45 213	193 45 216
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	196 40 186	194 40 191	193 40 193	192 41 196	193 42 200	193 43 205	193 43 207	193 44 211	192 44 213


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

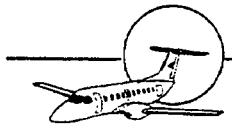
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 10000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-20	-10	0	10	20	30	40		
12000	IAS TORQUE F FLOW KG/H/ENG	KT % 204 50 206	KT % 207 52 214	KT % 206 52 216	KT % 206 53 221	KT % 205 54 224	KT % 205 55 228	KT % 205 56 233	KT % 204 57 237	KT % 204 58 240	203 58 243	
11500	IAS TORQUE F FLOW KG/H/ENG	KT % 202 47 201	KT % 204 49 207	KT % 204 51 212	KT % 203 51 215	KT % 203 52 220	KT % 203 53 223	KT % 202 54 227	KT % 202 55 231	KT % 201 55 233	201 56 237	
11000	IAS TORQUE F FLOW KG/H/ENG	KT % 200 46 197	KT % 200 47 197	KT % 202 49 207	KT % 202 49 211	KT % 201 50 215	KT % 201 51 218	KT % 201 52 222	KT % 201 53 226	KT % 200 53 229	199 54 232	
10500	IAS TORQUE F FLOW KG/H/ENG	KT % 199 44 194	KT % 199 45 197	KT % 199 47 202	KT % 199 48 206	KT % 199 49 211	KT % 199 49 214	KT % 199 50 217	KT % 198 51 221	KT % 198 51 225	198 52 227	
10000	IAS TORQUE F FLOW KG/H/ENG	KT % 198 43 191	KT % 197 44 193	KT % 198 45 199	KT % 198 46 202	KT % 198 47 207	KT % 198 48 210	KT % 198 48 213	KT % 197 49 216	KT % 196 49 219	196 50 223	
9500	IAS TORQUE F FLOW KG/H/ENG	KT % 197 42 188	KT % 195 42 190	KT % 195 43 194	KT % 196 44 199	KT % 196 45 203	KT % 196 46 206	KT % 195 46 209	KT % 195 47 212	KT % 195 48 215	195 48 219	
9000	IAS TORQUE F FLOW KG/H/ENG	KT % 196 41 185	KT % 195 41 188	KT % 193 41 190	KT % 194 42 194	KT % 194 44 199	KT % 194 44 202	KT % 194 45 205	KT % 193 45 208	KT % 192 46 211	192 47 215	
8500	IAS TORQUE F FLOW KG/H/ENG	KT % 195 40 183	KT % 194 40 185	KT % 192 40 188	KT % 192 41 190	KT % 192 42 194	KT % 193 43 199	KT % 192 43 201	KT % 191 44 205	KT % 191 44 207	191 45 210	
8000	IAS TORQUE F FLOW KG/H/ENG	KT % 194 39 181	KT % 192 39 183	KT % 191 39 185	KT % 190 40 188	KT % 190 40 191	KT % 190 41 194	KT % 190 41 199	KT % 191 42 201	KT % 190 42 204	189 43 207	

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 11000 FT

WEIGHT KG	IOAT (°C)											
			-50	-40	-30	-20	-10	0	10	20	30	40
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	205 51 205	204 51 209	203 52 212	203 53 216	203 54 221	203 55 225	203 56 229	202 57 233	202 57 235	202 58 239
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	200 47 198	203 50 204	202 50 208	201 51 211	201 52 215	201 53 220	201 54 223	200 54 226	199 55 229	199 56 234
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	198 46 193	199 47 199	200 48 203	200 49 207	199 50 210	199 51 214	199 52 218	198 52 221	198 53 224	197 54 228
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	196 44 189	196 45 194	197 46 198	197 47 202	198 48 207	197 49 209	196 49 213	196 50 217	196 51 219	195 51 222
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	195 43 186	194 43 189	196 45 194	195 45 198	196 46 201	196 47 205	195 48 208	194 48 211	194 49 215	194 50 218
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	194 41 183	193 42 185	193 43 189	194 44 194	194 45 197	193 45 201	193 46 204	192 46 207	192 47 209	192 48 214
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	193 40 180	191 40 182	191 41 185	192 42 189	192 43 194	192 44 197	191 44 199	190 44 202	190 45 205	190 46 209
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	192 39 178	191 39 180	189 40 182	190 40 186	190 41 190	190 42 193	190 43 197	189 43 199	188 43 201	188 44 205
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	191 38 176	189 38 177	188 38 179	188 39 182	188 40 186	188 41 190	188 41 193	188 42 195	187 42 198	187 42 201


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

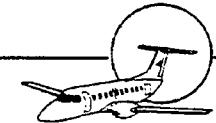
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 12000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-20	-10	0	10	20	30	40		
12000	IAS TORQUE F FLOW KG/H/ENG	KT % 203 51 202	KT % 202 51 205	KT % 202 52 209	KT % 201 53 213	KT % 201 54 217	KT % 201 55 221	KT % 201 56 225	KT % 200 57 229	KT % 200 58 233	KT % 200 58 236	
11500	IAS TORQUE F FLOW KG/H/ENG	KT % 200 48 196	KT % 200 49 201	KT % 200 50 204	KT % 199 51 207	KT % 199 52 211	KT % 199 53 216	KT % 199 53 219	KT % 198 54 223	KT % 198 55 227	KT % 198 56 230	
11000	IAS TORQUE F FLOW KG/H/ENG	KT % 196 46 190	KT % 198 47 196	KT % 198 48 199	KT % 197 49 203	KT % 197 49 206	KT % 197 50 210	KT % 197 51 214	KT % 196 52 217	KT % 195 53 220	KT % 196 54 224	
10500	IAS TORQUE F FLOW KG/H/ENG	KT % 194 43 184	KT % 195 45 190	KT % 196 46 195	KT % 195 47 198	KT % 195 48 202	KT % 195 48 205	KT % 194 49 209	KT % 194 50 213	KT % 194 51 215	KT % 193 51 218	
10000	IAS TORQUE F FLOW KG/H/ENG	KT % 192 42 181	KT % 192 43 185	KT % 194 44 190	KT % 193 45 193	KT % 193 46 197	KT % 193 47 201	KT % 192 47 203	KT % 192 48 207	KT % 192 49 210	KT % 191 49 213	
9500	IAS TORQUE F FLOW KG/H/ENG	KT % 191 41 177	KT % 190 41 181	KT % 191 42 185	KT % 192 43 190	KT % 191 44 193	KT % 191 45 196	KT % 190 45 199	KT % 190 46 203	KT % 190 47 206	KT % 190 47 208	
9000	IAS TORQUE F FLOW KG/H/ENG	KT % 190 39 174	KT % 189 40 178	KT % 189 41 181	KT % 189 42 185	KT % 190 43 189	KT % 189 43 192	KT % 188 43 195	KT % 188 44 198	KT % 188 44 201	KT % 188 45 204	
8500	IAS TORQUE F FLOW KG/H/ENG	KT % 189 38 172	KT % 188 39 174	KT % 187 39 177	KT % 188 40 181	KT % 188 41 185	KT % 188 42 189	KT % 187 42 191	KT % 186 42 193	KT % 186 43 196	KT % 186 44 199	
8000	IAS TORQUE F FLOW KG/H/ENG	KT % 188 37 170	KT % 187 37 172	KT % 185 38 174	KT % 185 38 177	KT % 186 39 181	KT % 186 40 184	KT % 186 41 188	KT % 185 41 190	KT % 184 41 192	KT % 184 42 195	

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

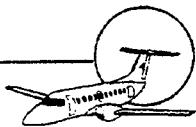
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 13000 FT

WEIGHT KG	IAS KT F FLOW KG/H/ENG	TORQUE % KG/H/ENG	IOAT (°C)									
			-50	-40	-30	-20	-10	0	10	20	30	40
12000	IAS KT F FLOW KG/H/ENG	200 50 198	200 51 202	200 52 205	200 53 211	200 54 214	199 55 217	199 56 222	199 57 227	198 58 230	198 58 232	
11500	IAS KT F FLOW KG/H/ENG	200 49 194	198 49 197	198 50 201	197 50 204	197 52 208	197 53 212	197 53 216	196 54 216	196 55 223	196 56 226	
11000	IAS KT F FLOW KG/H/ENG	197 46 189	196 47 193	195 48 196	195 49 199	195 49 202	195 50 206	195 51 211	194 52 214	194 53 217	194 54 220	
10500	IAS KT F FLOW KG/H/ENG	192 43 181	194 45 188	194 46 191	193 47 194	193 47 198	193 48 201	192 49 205	192 50 208	191 50 211	192 51 214	
10000	IAS KT F FLOW KG/H/ENG	190 42 177	190 43 181	192 44 186	191 45 190	191 46 193	191 46 196	191 47 199	190 48 203	190 48 206	189 49 209	
9500	IAS KT F FLOW KG/H/ENG	188 40 174	188 41 177	189 42 181	189 43 185	189 44 189	189 44 191	188 45 195	188 46 197	188 46 201	187 47 204	
9000	IAS KT F FLOW KG/H/ENG	187 39 170	186 39 173	187 40 177	187 41 181	187 42 184	187 43 187	186 43 190	186 44 193	186 44 196	186 45 200	
8500	IAS KT F FLOW KG/H/ENG	186 38 167	185 38 169	184 38 173	185 40 177	185 40 180	185 41 184	185 41 186	184 42 188	184 43 192	184 43 195	
8000	IAS KT F FLOW KG/H/ENG	185 37 165	184 37 167	182 37 169	183 38 173	184 39 177	183 39 180	183 40 182	182 40 184	182 41 188	182 41 191	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

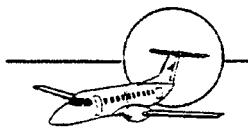
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 14000 FT

WEIGHT KG	IOAT (°C)											
		-50	-40	-30	-20	-10	0	10	20	30	40	
12000	IAS KT	199	199	198	199	198	197	198	198	197	190	190
	TORQUE %	50	51	52	53	54	55	56	57	58	55	55
	F FLOW KG/H/ENG	196	200	203	208	211	215	220	224	226	223	223
11500	IAS KT	196	196	196	196	196	195	195	195	194	194	194
	TORQUE %	48	49	50	51	52	53	53	55	55	56	56
	F FLOW KG/H/ENG	190	194	197	202	206	209	212	217	220	223	223
11000	IAS KT	196	194	194	193	193	193	193	192	193	192	192
	TORQUE %	47	47	48	48	49	50	51	52	53	53	53
	F FLOW KG/H/ENG	186	188	192	196	199	203	207	210	214	214	217
10500	IAS KT	192	192	192	191	191	191	191	190	190	190	190
	TORQUE %	44	45	46	46	47	48	49	50	50	51	51
	F FLOW KG/H/ENG	180	185	187	191	194	198	201	205	207	211	211
10000	IAS KT	188	190	190	190	189	188	189	188	188	188	187
	TORQUE %	41	43	44	45	45	46	47	47	48	48	49
	F FLOW KG/H/ENG	174	179	183	186	189	192	196	199	202	205	205
9500	IAS KT	186	186	187	187	187	187	186	186	186	186	185
	TORQUE %	40	41	42	43	43	44	45	45	46	46	46
	F FLOW KG/H/ENG	169	174	177	181	185	188	191	194	197	199	199
9000	IAS KT	184	184	185	185	185	185	184	184	184	184	183
	TORQUE %	38	39	40	41	42	42	43	43	44	44	45
	F FLOW KG/H/ENG	165	169	173	176	180	183	186	189	192	194	194
8500	IAS KT	183	182	182	183	183	183	182	182	182	182	182
	TORQUE %	37	37	38	39	40	40	41	41	42	42	43
	F FLOW KG/H/ENG	163	165	169	173	176	179	182	184	187	190	190
8000	IAS KT	182	181	180	181	181	181	180	180	180	180	180
	TORQUE %	36	36	36	37	38	39	39	40	40	40	41
	F FLOW KG/H/ENG	160	161	164	169	172	175	177	179	182	186	186

20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

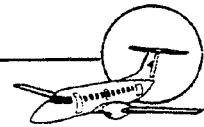
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 15000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-20	-10	-5	0	10	20	30		
12000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	197 50 194	197 51 197	197 53 202	197 53 205	196 54 208	196 55 210	196 55 213	196 56 217	195 57 220	195 58 223
11500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	194 48 187	195 49 192	195 50 195	194 51 199	194 52 203	194 52 204	193 53 206	194 54 211	193 55 214	193 55 217
11000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	192 46 182	192 47 186	192 48 189	192 49 193	192 49 197	192 50 198	191 50 200	191 51 204	191 52 208	191 53 211
10500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	191 45 179	190 45 180	190 46 184	189 46 187	189 47 191	189 48 193	189 48 195	189 49 198	188 50 201	188 51 205
10000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	188 42 172	188 43 176	188 44 179	187 44 182	187 45 185	187 45 187	187 46 189	186 47 193	186 47 195	186 48 198
9500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	183 39 165	186 41 171	185 42 175	185 42 178	185 43 181	185 43 182	184 44 184	184 45 187	184 45 190	183 46 193
9000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	182 38 161	182 39 165	183 40 170	183 40 173	183 41 176	183 42 178	183 42 179	182 42 182	182 43 185	181 44 187
8500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	180 36 158	180 37 161	180 38 165	181 39 169	181 39 172	181 40 173	180 40 175	180 40 177	180 41 180	180 42 183
8000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	179 35 155	178 35 158	178 36 161	179 37 164	179 38 168	179 38 169	179 38 171	178 39 173	177 39 175	177 40 178


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

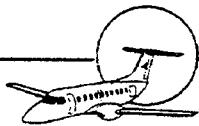
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 16000 FT

WEIGHT KG	IOAT (°C)											
		-50	-40	-30	-20	-10	-5	0	10	20	30	
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	196 51 191	196 52 195	196 53 199	195 53 203	195 54 206	195 55 209	195 56 212	194 57 214	194 57 218	193 58 221
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	193 48 185	193 49 189	193 50 193	193 51 197	192 52 200	192 52 201	192 53 204	192 54 209	192 55 211	191 55 214
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	191 46 179	191 47 183	190 48 187	191 49 191	190 50 194	190 50 196	189 50 197	190 52 201	190 52 206	189 53 208
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	189 44 175	188 45 177	188 45 181	188 46 184	188 47 188	187 48 190	187 48 192	187 49 194	187 50 199	187 51 202
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	187 42 170	186 43 173	186 43 176	185 44 179	185 45 183	185 45 184	185 46 186	185 47 189	184 47 193	184 48 196
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	182 39 163	184 41 169	183 41 171	183 42 174	182 43 176	183 43 179	183 44 180	182 44 184	182 45 187	181 46 189
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	179 37 157	181 39 163	181 40 166	181 40 169	181 41 173	181 41 174	180 41 175	180 42 178	180 43 181	179 43 184
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	178 36 154	177 36 157	179 38 162	179 38 164	179 39 168	179 39 169	178 40 171	178 40 173	178 41 176	177 41 179
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	177 34 151	176 35 154	176 36 157	177 37 161	177 37 163	177 38 165	176 38 166	176 38 169	175 39 171	175 39 174

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 17000 FT

WEIGHT KG	IAS KT	TORQUE %	F FLOW KG/H/ENG	IOAT (°C)									
				-50	-40	-30	-20	-10	-5	0	10	20	30
12000	IAS KT	195	195	194	194	194	194	194	193	193	192	185	185
	TORQUE %	51	52	53	54	55	55	56	56	57	58	56	56
	F FLOW KG/H/ENG	189	193	197	201	205	207	209	212	216	216	212	212
11500	IAS KT	192	192	192	191	191	191	191	191	190	190	189	189
	TORQUE %	48	49	50	51	52	53	53	53	54	55	56	56
	F FLOW KG/H/ENG	183	187	191	194	199	200	202	206	209	209	212	212
11000	IAS KT	189	189	189	189	188	188	188	188	188	188	188	187
	TORQUE %	46	47	48	49	50	50	51	51	52	53	53	53
	F FLOW KG/H/ENG	177	181	185	188	191	193	196	199	202	205	205	205
10500	IAS KT	186	187	186	186	186	186	186	185	186	186	185	185
	TORQUE %	44	45	46	47	47	48	48	48	49	50	51	51
	F FLOW KG/H/ENG	172	175	178	182	185	187	189	193	196	196	198	198
10000	IAS KT	185	184	184	184	184	184	183	183	183	183	183	183
	TORQUE %	42	43	43	44	45	45	46	46	47	47	48	48
	F FLOW KG/H/ENG	167	170	173	176	179	181	183	183	186	189	192	192
9500	IAS KT	182	182	181	181	181	181	181	181	180	180	180	180
	TORQUE %	40	41	41	42	43	43	44	44	45	45	46	46
	F FLOW KG/H/ENG	162	165	167	171	174	175	177	180	183	183	186	186
9000	IAS KT	178	180	179	179	179	178	178	178	178	178	178	177
	TORQUE %	37	39	39	40	41	41	42	42	43	43	43	43
	F FLOW KG/H/ENG	155	160	163	166	169	170	172	175	178	180	180	180
8500	IAS KT	175	176	177	177	177	176	176	176	176	176	176	175
	TORQUE %	35	36	37	38	39	39	39	39	40	41	41	41
	F FLOW KG/H/ENG	150	155	158	161	164	166	167	170	173	173	175	175
8000	IAS KT	174	174	174	174	175	175	174	174	174	174	173	173
	TORQUE %	34	35	36	36	37	37	37	37	38	39	39	39
	F FLOW KG/H/ENG	147	150	154	157	160	161	162	165	168	170	170	170


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

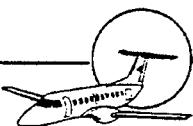
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 18000 FT

WEIGHT KG	IAS	KT	IOAT (°C)									
			-50	-40	-30	-20	-10	-5	0	10	20	30
12000	TORQUE %	193 51	193 52	193 53	193 54	192 55	192 56	192 56	191 57	191 58	191 58	176 52
	F FLOW KG/H/ENG	187	192	196	200	204	205	207	211	215	215	200
11500	TORQUE %	191 49	191 50	190 51	190 52	190 53	190 53	189 54	189 54	188 55	188 55	180 52
	F FLOW KG/H/ENG	181	185	189	193	197	198	200	204	207	207	202
11000	TORQUE %	188 46	188 47	188 48	187 49	187 50	187 51	187 51	186 52	186 53	186 53	185 53
	F FLOW KG/H/ENG	175	179	183	186	189	192	194	197	200	200	203
10500	TORQUE %	185 44	185 45	185 46	185 47	184 47	184 48	184 48	184 49	184 50	184 51	183 51
	F FLOW KG/H/ENG	170	173	177	180	183	185	187	191	194	194	196
10000	TORQUE %	182 42	182 43	182 43	182 44	182 45	182 46	181 46	181 47	182 48	182 48	181 48
	F FLOW KG/H/ENG	163	167	171	174	177	179	180	184	188	188	190
9500	TORQUE %	181 40	180 40	180 41	179 42	179 43	179 43	179 44	179 44	179 45	179 46	179 46
	F FLOW KG/H/ENG	159	162	165	168	172	173	175	178	181	181	184
9000	TORQUE %	178 38	178 39	177 39	177 40	176 40	177 41	177 41	176 42	176 43	176 43	176 43
	F FLOW KG/H/ENG	154	157	160	163	165	168	169	172	174	174	177
8500	TORQUE %	174 35	175 37	175 37	175 38	174 38	174 39	174 39	174 40	174 40	174 41	173 41
	F FLOW KG/H/ENG	148	152	155	158	160	162	163	167	169	169	172
8000	TORQUE %	171 33	172 34	173 35	172 36	173 37	172 37	172 37	172 38	171 38	171 38	171 39
	F FLOW KG/H/ENG	143	147	150	153	156	158	159	161	164	164	167

20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 19000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-20	-10	-5	0	10	20	30		
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	192 51 186	192 52 190	192 54 195	192 55 199	191 56 203	191 56 205	191 57 206	190 58 210	187 58 211	- - -
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	190 49 180	189 50 184	189 51 188	189 52 192	189 53 195	188 53 197	188 54 199	187 55 202	187 56 206	171 50 191
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	187 47 174	187 48 178	186 48 180	186 49 184	186 50 189	186 51 190	185 51 192	185 52 195	184 53 198	175 50 192
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	184 44 168	184 45 172	184 46 174	183 47 178	183 48 181	183 48 183	183 49 185	183 50 189	182 50 191	181 51 193
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	181 42 162	181 43 165	181 44 169	181 44 172	180 45 174	180 45 176	180 46 178	180 47 182	180 48 185	179 48 187
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	178 40 156	178 40 160	178 41 162	178 42 166	178 43 169	178 43 171	177 43 172	177 44 175	177 45 179	177 46 181
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	177 38 153	176 38 154	175 39 157	175 40 160	175 40 163	175 41 165	175 41 166	174 42 169	174 43 172	174 43 175
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	173 36 146	174 37 150	173 37 152	173 38 155	172 38 157	172 39 159	172 39 161	172 40 164	172 40 166	171 41 168
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	169 33 140	170 34 144	171 35 147	171 36 150	171 36 153	170 37 154	170 37 155	170 38 159	170 38 161	169 39 163


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**CRUISE CONTROL
ALL ENGINES OPERATING**
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 20000 FT

WEIGHT KG	IAS	KT	IOAT (°C)									
			-50	-40	-30	-20	-15	-10	-5	0	10	20
12000	TORQUE %	52	191	191	191	191	190	190	189	189	189	178
	F FLOW KG/H/ENG	185	53	54	55	56	56	57	57	57	59	54
	IAS	188	188	188	188	188	187	187	187	187	186	183
11500	TORQUE %	49	188	188	188	188	187	187	187	187	186	183
	F FLOW KG/H/ENG	178	50	52	53	53	54	54	54	54	55	55
	IAS	186	185	185	185	185	185	185	184	184	183	183
11000	TORQUE %	47	186	185	185	185	185	185	184	184	183	183
	F FLOW KG/H/ENG	172	48	49	50	51	51	51	52	52	52	54
	IAS	183	183	182	182	182	182	182	182	181	181	181
10500	TORQUE %	44	183	183	182	182	182	182	182	181	181	181
	F FLOW KG/H/ENG	166	45	46	47	48	48	49	49	49	50	51
	IAS	180	180	180	179	179	178	179	179	179	179	178
10000	TORQUE %	42	180	180	180	179	179	178	179	179	179	178
	F FLOW KG/H/ENG	160	43	44	45	45	45	46	46	46	47	48
	IAS	177	177	177	177	176	176	176	175	175	176	176
9500	TORQUE %	40	177	177	177	176	176	176	175	175	176	176
	F FLOW KG/H/ENG	154	41	41	42	43	43	43	44	44	45	45
	IAS	174	174	174	174	174	174	173	173	173	173	173
9000	TORQUE %	38	174	174	174	174	174	173	173	173	173	173
	F FLOW KG/H/ENG	148	38	39	40	40	41	41	41	41	42	43
	IAS	173	172	171	171	171	171	171	171	171	170	170
8500	TORQUE %	36	173	172	171	171	171	171	171	171	170	170
	F FLOW KG/H/ENG	144	36	37	37	38	38	39	39	39	40	40
	IAS	168	170	169	169	169	168	168	168	168	168	168
8000	TORQUE %	33	168	170	169	169	169	168	168	168	168	168
	F FLOW KG/H/ENG	138	35	35	36	36	36	36	36	37	37	38

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

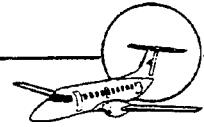
PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION
NP: 85%
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

ALTITUDE: 21000 FT

WEIGHT KG	IAS KT	TORQUE %	F FLOW KG/H/ENG	IOAT (°C)									
				-50	-40	-30	-20	-15	-10	-5	0	10	20
12000	IAS KT	190	190	190	189	188	188	188	188	188	188	188	-
	TORQUE %	52	54	55	56	56	57	57	57	58	58	59	-
	F FLOW KG/H/ENG	185	189	194	197	198	201	202	202	205	205	209	-
11500	IAS KT	187	187	187	187	186	186	185	185	185	185	185	174
	TORQUE %	50	51	52	53	53	54	54	54	55	55	56	52
	F FLOW KG/H/ENG	177	182	187	190	192	193	195	195	197	197	201	190
11000	IAS KT	184	184	184	184	184	183	183	183	183	183	182	178
	TORQUE %	47	48	49	50	51	51	52	52	52	53	53	52
	F FLOW KG/H/ENG	171	174	179	183	184	186	187	187	190	190	192	192
10500	IAS KT	181	181	181	181	181	181	180	180	180	180	180	179
	TORQUE %	45	46	46	48	48	48	49	49	49	49	50	51
	F FLOW KG/H/ENG	165	168	171	176	177	179	180	180	182	182	185	188
10000	IAS KT	179	179	178	178	178	178	178	178	177	177	177	176
	TORQUE %	42	43	44	45	45	46	46	46	47	47	47	48
	F FLOW KG/H/ENG	158	162	165	168	169	172	173	173	175	175	178	181
9500	IAS KT	176	176	175	175	175	174	174	174	175	175	174	174
	TORQUE %	40	41	42	42	43	43	43	43	44	44	45	45
	F FLOW KG/H/ENG	152	155	159	161	163	164	166	166	168	168	171	174
9000	IAS KT	172	173	172	172	172	172	172	172	171	171	172	171
	TORQUE %	38	38	39	40	40	41	41	41	41	42	42	43
	F FLOW KG/H/ENG	147	150	152	156	157	158	160	161	161	165	165	167
8500	IAS KT	170	170	169	169	170	169	169	169	169	169	169	169
	TORQUE %	36	36	37	38	38	38	38	38	39	39	40	40
	F FLOW KG/H/ENG	142	144	146	150	151	152	154	154	156	156	158	161
8000	IAS KT	167	168	167	167	166	166	166	167	166	166	166	166
	TORQUE %	34	34	35	35	36	36	36	36	37	37	37	38
	F FLOW KG/H/ENG	136	139	141	144	146	147	148	148	150	152	152	155


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

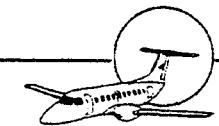
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 22000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-20	-15	-10	-5	0	10	20		
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	189 53 185	188 54 189	188 55 192	187 56 195	187 57 198	187 57 200	187 58 202	187 58 204	178 56 199	- - -
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	186 50 177	186 51 182	186 52 185	185 53 188	185 54 190	184 54 192	184 55 194	184 56 196	184 57 200	- - -
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	183 47 170	183 49 174	183 50 178	183 51 182	182 51 183	182 52 185	182 52 187	182 53 188	182 54 192	169 49 181
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	180 45 163	180 46 167	180 47 171	180 48 174	180 48 176	179 49 177	179 49 179	179 50 180	178 50 184	173 49 183
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	177 42 157	177 43 160	177 44 164	177 45 167	177 46 169	177 46 170	176 46 171	176 47 173	176 48 177	175 49 179
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	174 40 151	174 41 154	174 42 157	174 42 160	173 43 161	174 43 163	174 44 165	174 44 167	173 45 170	172 46 172
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	171 38 145	171 38 147	171 39 151	171 40 154	171 40 155	170 41 156	170 41 158	170 41 159	170 42 163	170 43 165
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	168 35 139	168 36 142	168 37 144	168 38 148	168 38 149	168 38 150	168 39 151	167 39 153	167 40 156	167 41 159
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	167 34 135	165 34 136	165 35 139	165 35 142	165 36 143	165 36 144	165 36 145	165 37 147	165 37 150	164 38 153

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 23000 FT

WEIGHT KG			IOAT (°C)									
			-50	-40	-30	-20	-15	-10	-5	0	10	20
12000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	187 53 184	187 54 188	187 55 192	187 56 194	186 57 198	186 58 200	186 59 203	186 59 205	-	-
11500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	185 50 177	184 51 180	184 53 184	184 54 187	183 54 190	183 55 192	183 55 194	183 56 196	174 53 190	-
11000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	182 48 169	182 49 174	182 50 178	181 51 181	181 51 182	180 52 184	180 52 186	180 53 188	180 54 191	-
10500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	179 45 162	179 46 166	179 47 170	178 48 174	178 49 175	178 50 176	178 50 178	177 50 179	178 51 184	164 47 173
10000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	176 43 156	176 44 159	176 45 163	176 46 166	176 46 168	175 46 169	175 47 170	174 47 172	174 48 175	170 47 174
9500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	173 40 149	173 41 152	172 42 155	172 43 159	173 43 161	173 44 162	172 44 164	172 44 165	172 45 168	171 46 171
9000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	170 38 143	170 39 146	170 40 150	169 40 152	169 40 153	169 41 155	169 42 157	169 42 158	169 43 161	168 43 163
8500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	167 36 137	167 36 140	167 37 143	167 38 146	167 38 147	166 38 148	166 39 149	166 39 151	166 40 154	166 41 157
8000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	164 34 132	164 34 135	164 35 137	164 35 140	164 36 141	164 36 142	164 37 144	163 37 145	163 37 147	163 38 151


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 24000 FT

WEIGHT KG	IAS	KT	IOAT (°C)									
			-50	-40	-30	-20	-15	-10	-5	0	10	20
12000	TORQUE	%	186	185	185	185	185	185	185	180	-	-
	F FLOW	KG/H/ENG	53	55	56	57	58	59	60	58	-	-
	IAS	KT	183	188	192	196	199	201	204	200	-	-
11500	TORQUE	%	184	183	183	183	182	182	182	182	-	-
	F FLOW	KG/H/ENG	51	52	53	54	55	55	56	57	-	-
	IAS	KT	176	180	184	188	190	192	194	197	-	-
11000	TORQUE	%	181	181	180	180	180	180	179	179	169	-
	F FLOW	KG/H/ENG	48	49	50	51	52	53	53	54	51	-
	IAS	KT	169	173	176	180	182	184	186	188	180	-
10500	TORQUE	%	178	178	178	177	177	177	177	176	175	-
	F FLOW	KG/H/ENG	46	47	48	49	49	50	50	51	51	-
	IAS	KT	162	165	169	172	174	176	177	179	182	-
10000	TORQUE	%	175	175	175	175	174	174	173	173	174	161
	F FLOW	KG/H/ENG	43	44	45	46	46	47	47	47	49	44
	IAS	KT	154	158	162	166	167	168	170	171	175	164
9500	TORQUE	%	172	172	172	172	171	171	171	170	170	166
	F FLOW	KG/H/ENG	41	41	42	43	44	44	44	45	46	45
	IAS	KT	148	151	155	158	159	161	162	164	166	166
9000	TORQUE	%	169	169	168	168	168	168	168	168	167	167
	F FLOW	KG/H/ENG	38	39	40	40	41	41	42	42	43	44
	IAS	KT	142	145	147	151	153	154	155	156	159	162
8500	TORQUE	%	166	166	166	165	164	165	165	165	165	164
	F FLOW	KG/H/ENG	36	37	37	38	38	38	39	40	40	41
	IAS	KT	136	139	142	144	145	147	149	150	152	155
8000	TORQUE	%	162	162	162	162	162	162	161	161	162	161
	F FLOW	KG/H/ENG	33	34	35	36	36	36	36	37	38	38
	IAS	KT	129	132	135	138	139	140	141	142	145	148

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

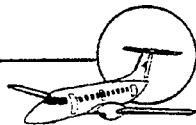
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 25000 FT

WEIGHT KG	IAS KT	TORQUE %	IOAT (°C)									
			-50	-40	-30	-25	-20	-15	-10	-5	0	10
12000	IAS KT	185	185	185	185	185	185	185	185	179	-	-
	TORQUE %	54	56	57	58	58	59	60	60	58	-	-
	F FLOW KG/H/ENG	184	189	194	198	198	200	203	203	199	-	-
11500	IAS KT	182	182	182	182	181	181	182	182	181	174	-
	TORQUE %	51	52	53	54	55	56	56	57	57	54	-
	F FLOW KG/H/ENG	176	180	184	187	189	191	193	195	189	-	-
11000	IAS KT	179	179	179	179	178	178	178	178	178	178	-
	TORQUE %	49	50	51	52	52	53	53	54	54	54	-
	F FLOW KG/H/ENG	168	172	176	178	179	182	184	186	187	-	-
10500	IAS KT	177	177	176	176	176	176	176	176	175	175	165
	TORQUE %	46	47	48	48	49	50	50	51	51	51	48
	F FLOW KG/H/ENG	162	165	168	170	172	174	176	177	179	179	171
10000	IAS KT	174	174	174	173	173	173	173	172	172	172	170
	TORQUE %	43	44	45	46	46	47	47	48	48	48	48
	F FLOW KG/H/ENG	154	158	161	163	164	166	167	169	171	171	173
9500	IAS KT	171	170	171	171	171	170	170	169	169	169	169
	TORQUE %	41	42	43	43	44	44	44	45	45	45	46
	F FLOW KG/H/ENG	147	150	154	156	157	158	160	161	162	162	167
9000	IAS KT	168	167	167	168	168	167	167	166	166	166	166
	TORQUE %	38	39	40	41	41	41	42	42	42	42	43
	F FLOW KG/H/ENG	140	143	147	149	150	151	152	154	155	155	158
8500	IAS KT	165	165	164	164	164	164	164	164	164	164	163
	TORQUE %	36	37	37	38	38	38	39	39	40	40	40
	F FLOW KG/H/ENG	134	137	139	141	143	144	146	147	148	148	151
8000	IAS KT	162	161	161	161	161	160	160	160	161	161	160
	TORQUE %	34	34	35	35	36	36	36	37	37	37	38
	F FLOW KG/H/ENG	129	131	133	135	136	137	138	140	142	142	144


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

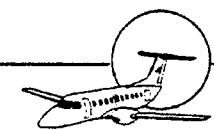
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 26000 FT

WEIGHT KG	IOAT (°C)										
	-50	-40	-30	-25	-20	-15	-10	-5	0	10	
12000	IAS KT TORQUE F FLOW KG/H/ENG	184 55 56 184	184 56 57 189	184 58 59 194	184 59 60 198	185 60 58 200	178 58 58 203	- - -	- - -	- - -	
11500	IAS KT TORQUE F FLOW KG/H/ENG	181 52 53 176	181 53 54 181	181 54 55 185	181 55 56 188	181 56 57 190	181 57 57 193	173 55 55 194	- - -	- - -	
11000	IAS KT TORQUE F FLOW KG/H/ENG	178 49 50 168	178 50 51 172	178 52 53 176	178 53 53 178	178 53 54 181	178 54 54 183	177 54 54 185	170 52 52 180	- - -	
10500	IAS KT TORQUE F FLOW KG/H/ENG	175 46 47 160	175 46 48 164	175 49 49 168	175 49 50 170	175 50 51 172	174 51 51 174	174 51 51 176	174 52 52 177	- - -	
10000	IAS KT TORQUE F FLOW KG/H/ENG	173 44 45 154	173 45 46 158	173 46 46 160	172 46 47 162	171 47 47 163	172 48 48 166	171 48 48 167	171 48 48 168	161 46 46 163	
9500	IAS KT TORQUE F FLOW KG/H/ENG	169 41 42 146	170 42 43 150	170 43 44 153	169 44 44 155	169 44 45 156	168 45 45 157	168 45 45 159	168 46 46 161	167 46 46 162	
9000	IAS KT TORQUE F FLOW KG/H/ENG	167 39 41 139	166 39 41 142	167 41 41 146	167 41 42 148	167 42 42 149	166 42 42 150	165 42 42 151	165 43 43 153	165 44 44 154	
8500	IAS KT TORQUE F FLOW KG/H/ENG	163 36 37 133	163 37 38 136	163 38 39 138	163 39 39 140	163 39 39 142	163 39 40 144	162 40 40 144	162 40 40 145	162 41 41 147	
8000	IAS KT TORQUE F FLOW KG/H/ENG	160 34 35 127	160 35 35 130	160 35 36 132	159 36 36 133	159 36 37 134	160 37 37 135	160 37 37 138	160 37 37 139	159 38 38 140	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

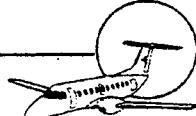
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 27000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-25	-20	-15	-10	-5	0	10		
12000	IAS KT 183 TORQUE % 55 F FLOW KG/H/ENG 185	183 57 191	183 58 196	184 60 200	184 61 204	185 58 197	177 58 -	- -	- -	- -	- -	-
11500	IAS KT 180 TORQUE % 53 F FLOW KG/H/ENG 177	180 54 182	180 55 187	181 56 190	181 57 192	181 58 194	172 55 187	- -	- -	- -	- -	-
11000	IAS KT 177 TORQUE % 49 F FLOW KG/H/ENG 168	177 51 172	177 52 177	177 53 179	177 54 182	177 54 184	177 55 186	168 52 179	- -	- -	- -	-
10500	IAS KT 174 TORQUE % 47 F FLOW KG/H/ENG 160	174 48 165	174 49 168	174 50 170	174 50 172	174 51 175	174 52 176	173 52 178	165 49 171	- -	- -	-
10000	IAS KT 171 TORQUE % 44 F FLOW KG/H/ENG 153	171 45 156	171 46 160	171 47 162	171 47 164	171 48 166	170 48 167	170 49 169	170 49 171	- -	- -	-
9500	IAS KT 169 TORQUE % 42 F FLOW KG/H/ENG 146	169 43 150	169 44 153	168 44 154	167 44 155	167 45 157	167 45 158	167 46 160	167 46 162	158 43 155	158 43 155	-
9000	IAS KT 165 TORQUE % 39 F FLOW KG/H/ENG 138	165 40 142	165 41 145	165 41 147	165 42 148	164 42 149	164 42 150	164 43 152	164 43 153	164 43 156	163 44 156	-
8500	IAS KT 162 TORQUE % 36 F FLOW KG/H/ENG 132	162 37 135	162 38 138	163 39 140	162 39 141	162 39 142	161 39 143	161 40 144	161 40 146	161 40 149	160 41 149	-
8000	IAS KT 159 TORQUE % 34 F FLOW KG/H/ENG 126	159 35 128	159 35 131	158 36 132	158 36 133	159 37 135	159 37 136	158 37 137	158 37 139	158 37 141	157 38 141	-


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

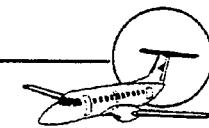
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 28000 FT

WEIGHT KG	IOAT (°C)										
		-50	-40	-30	-25	-20	-15	-10	-5	0	10
12000	IAS KT	183	184	184	185	176	-	-	-	-	-
	TORQUE %	57	59	58	61	59	-	-	-	-	-
	F FLOW KG/H/ENG	188	193	198	203	197	-	-	-	-	-
11500	IAS KT	179	179	180	181	181	171	-	-	-	-
	TORQUE %	53	55	56	57	58	55	-	-	-	-
	F FLOW KG/H/ENG	178	183	189	192	195	187	-	-	-	-
11000	IAS KT	176	176	176	177	177	177	167	-	-	-
	TORQUE %	50	52	53	54	55	55	52	-	-	-
	F FLOW KG/H/ENG	169	174	178	181	183	186	178	-	-	-
10500	IAS KT	173	173	173	173	173	173	173	165	-	-
	TORQUE %	47	48	49	50	51	52	52	50	-	-
	F FLOW KG/H/ENG	160	165	169	171	174	175	177	171	-	-
10000	IAS KT	171	170	170	170	170	170	170	169	161	-
	TORQUE %	45	46	46	47	48	49	49	49	47	-
	F FLOW KG/H/ENG	153	156	160	162	164	166	167	169	162	-
9500	IAS KT	167	167	166	166	166	166	166	166	165	-
	TORQUE %	42	43	44	44	45	45	46	46	47	-
	F FLOW KG/H/ENG	145	148	151	154	156	157	158	160	162	-
9000	IAS KT	165	165	164	164	163	163	163	163	163	154
	TORQUE %	39	40	41	42	42	42	43	43	43	41
	F FLOW KG/H/ENG	139	142	145	147	147	149	151	152	153	148
8500	IAS KT	161	161	161	161	161	160	160	160	159	160
	TORQUE %	36	37	38	39	39	39	40	40	40	42
	F FLOW KG/H/ENG	131	134	137	139	141	141	142	144	145	149
8000	IAS KT	158	158	158	158	158	158	157	157	156	156
	TORQUE %	34	35	36	36	37	37	37	37	38	38
	F FLOW KG/H/ENG	125	127	130	132	133	134	135	136	137	140

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALCRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

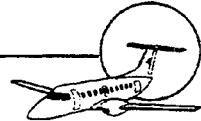
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 29000 FT

WEIGHT KG	IAS KT	TORQUE %	F FLOW KG/H/ENG	IOAT (°C)									
				-50	-40	-30	-25	-20	-15	-10	-5	0	10
12000	IAS KT	181	182	184	174	-	-	-	-	-	-	-	-
	TORQUE %	57	59	61	58	-	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	190	196	202	194	-	-	-	-	-	-	-	-
11500	IAS KT	179	179	180	181	171	-	-	-	-	-	-	-
	TORQUE %	54	56	58	59	56	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	180	186	192	195	186	-	-	-	-	-	-	-
11000	IAS KT	175	175	176	177	177	167	-	-	-	-	-	-
	TORQUE %	51	52	54	55	56	53	-	-	-	-	-	-
	F FLOW KG/H/ENG	170	175	180	183	186	178	-	-	-	-	-	-
10500	IAS KT	172	172	172	173	173	173	164	-	-	-	-	-
	TORQUE %	48	49	50	51	52	53	50	-	-	-	-	-
	F FLOW KG/H/ENG	162	166	170	173	175	177	170	-	-	-	-	-
10000	IAS KT	169	169	169	169	169	169	169	169	160	-	-	-
	TORQUE %	45	46	47	48	49	49	50	47	-	-	-	-
	F FLOW KG/H/ENG	153	157	161	163	165	167	168	162	-	-	-	-
9500	IAS KT	166	166	166	165	165	165	165	165	165	158	-	-
	TORQUE %	42	43	44	45	45	46	46	47	47	44	-	-
	F FLOW KG/H/ENG	145	149	152	154	156	157	159	161	154	-	-	-
9000	IAS KT	163	163	162	162	162	162	162	162	162	162	162	-
	TORQUE %	40	40	41	42	42	43	43	43	43	44	44	-
	F FLOW KG/H/ENG	138	141	143	145	147	149	150	151	153	-	-	-
8500	IAS KT	160	160	160	160	159	159	159	159	159	158	151	-
	TORQUE %	37	38	39	39	39	40	40	40	41	41	39	-
	F FLOW KG/H/ENG	131	134	137	138	139	140	142	143	145	145	140	-
8000	IAS KT	156	156	157	157	157	156	156	155	155	155	155	-
	TORQUE %	34	35	36	36	37	37	37	38	38	38	39	-
	F FLOW KG/H/ENG	123	126	129	130	133	133	134	135	137	137	139	-


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 30000 FT

WEIGHT KG	IAS KT	TORQUE %	F FLOW KG/H/ENG	IOAT (°C)								
				-50	-40	-35	-30	-25	-20	-15	-10	-5
12000	IAS KT	181	181	181	170	-	-	-	-	-	-	-
	TORQUE %	58	59	60	58	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	193	196	199	191	-	-	-	-	-	-	-
11500	IAS KT	178	178	178	168	-	-	-	-	-	-	-
	TORQUE %	55	56	57	55	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	182	188	190	192	184	-	-	-	-	-	-
11000	IAS KT	175	175	175	176	175	165	-	-	-	-	-
	TORQUE %	52	53	54	55	55	53	-	-	-	-	-
	F FLOW KG/H/ENG	172	177	180	184	184	177	-	-	-	-	-
10500	IAS KT	171	172	172	173	172	163	-	-	-	-	-
	TORQUE %	49	50	51	51	52	50	-	-	-	-	-
	F FLOW KG/H/ENG	162	167	170	172	175	177	169	-	-	-	-
10000	IAS KT	168	168	168	168	168	168	169	160	-	-	-
	TORQUE %	46	47	47	48	49	49	50	47	-	-	-
	F FLOW KG/H/ENG	153	158	160	162	164	166	169	161	-	-	-
9500	IAS KT	165	165	165	165	165	165	165	164	157	-	-
	TORQUE %	43	44	44	45	45	46	47	47	45	-	-
	F FLOW KG/H/ENG	145	149	151	153	154	157	158	160	154	-	-
9000	IAS KT	162	162	162	162	161	161	161	161	161	154	154
	TORQUE %	40	41	41	42	42	43	43	44	44	42	42
	F FLOW KG/H/ENG	137	141	142	144	145	147	149	151	152	146	146
8500	IAS KT	159	159	158	158	158	158	158	158	157	157	157
	TORQUE %	37	38	38	39	39	40	40	41	41	41	41
	F FLOW KG/H/ENG	130	133	134	136	137	138	140	142	143	145	145
8000	IAS KT	156	156	156	156	156	155	154	154	154	154	154
	TORQUE %	35	36	36	36	37	37	37	38	38	38	38
	F FLOW KG/H/ENG	123	126	127	129	130	131	132	133	135	136	136

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

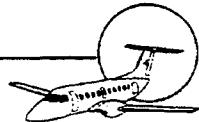
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 31000 FT

WEIGHT KG	IOAT (°C)										
	-50	-40	-35	-30	-25	-20	-15	-10	-5	0	
12000	IAS KT % F FLOW KG/H/ENG	181 59 195	177 59 197	- - -							
11500	IAS KT % F FLOW KG/H/ENG	177 56 185	178 57 189	175 57 189	- - -	- - -	- - -	- - -	- - -	- - -	
11000	IAS KT % F FLOW KG/H/ENG	174 53 174	175 54 180	175 55 182	173 55 182	162 52 174	- - -	- - -	- - -	- - -	
10500	IAS KT % F FLOW KG/H/ENG	171 49 164	171 51 169	172 52 172	173 53 175	170 52 175	161 50 167	- - -	- - -	- - -	
10000	IAS KT % F FLOW KG/H/ENG	167 46 155	167 48 159	168 48 161	168 49 163	169 50 166	169 50 169	159 48 160	- - -	- - -	
9500	IAS KT % F FLOW KG/H/ENG	164 43 146	164 44 150	164 45 151	164 45 153	164 46 156	164 47 157	165 47 160	156 45 153	- - -	
9000	IAS KT % F FLOW KG/H/ENG	161 40 137	160 41 140	160 42 142	160 42 144	160 43 146	161 43 148	160 44 150	160 44 151	154 42 146	- - -
8500	IAS KT % F FLOW KG/H/ENG	158 38 129	157 38 133	157 39 134	157 39 136	157 40 137	157 40 139	157 41 140	157 41 142	156 42 143	151 40 139
8000	IAS KT % F FLOW KG/H/ENG	155 35 123	155 36 125	154 36 126	154 36 128	154 37 129	153 37 130	154 38 132	154 38 133	153 38 134	153 39 136


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 85%

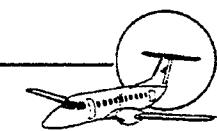
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 32000 FT

WEIGHT KG	IOAT (°C)										
	-50	-40	-35	-30	-25	-20	-15	-10	-5	0	
12000	IAS KT TORQUE % F FLOW KG/H/ENG	178 60 198	- - -								
11500	IAS KT TORQUE % F FLOW KG/H/ENG	177 57 188	171 56 187	- - -							
11000	IAS KT TORQUE % F FLOW KG/H/ENG	174 54 177	173 55 179	170 54 179	- - -	- - -	- - -	- - -	- - -	- - -	
10500	IAS KT TORQUE % F FLOW KG/H/ENG	171 50 167	170 51 169	169 52 172	168 52 173	158 50 165	- - -	- - -	- - -	- - -	
10000	IAS KT TORQUE % F FLOW KG/H/ENG	167 47 156	167 48 160	168 49 163	169 50 167	167 50 167	156 47 159	- - -	- - -	- - -	
9500	IAS KT TORQUE % F FLOW KG/H/ENG	163 44 147	163 44 151	163 45 153	164 46 155	164 47 158	164 48 159	155 45 152	- - -	- - -	
9000	IAS KT TORQUE % F FLOW KG/H/ENG	160 41 138	160 42 142	160 42 144	160 43 146	160 44 148	160 44 149	160 45 151	152 43 145	- - -	
8500	IAS KT TORQUE % F FLOW KG/H/ENG	156 38 130	156 39 133	156 39 134	156 40 136	156 40 137	156 41 139	156 41 141	156 42 142	149 40 139	
8000	IAS KT TORQUE % F FLOW KG/H/ENG	153 35 122	153 36 125	153 36 126	153 37 127	153 37 129	153 38 130	153 38 132	152 39 133	152 39 134	

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 5000 FT

WEIGHT KG	IOAT (°C)											
	-50	-30	-20	-10	0	10	20	30	40	50		
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	261 84 310	257 84 314	255 84 316	253 84 318	251 84 320	249 84 322	247 84 324	245 84 325	244 84 328	231 73 303
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	261 84 310	257 84 314	255 84 316	253 84 318	252 84 320	250 84 322	248 84 324	246 84 325	245 84 328	232 74 304
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	261 84 310	258 84 314	256 84 316	254 84 318	252 84 320	250 84 322	248 84 324	246 84 325	245 84 328	233 74 304
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	261 84 310	258 84 314	256 84 316	254 84 318	252 84 320	250 84 322	248 84 324	246 84 325	245 84 328	233 74 304
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	261 84 310	257 84 314	256 84 316	254 84 318	252 84 320	250 84 322	248 84 324	247 84 325	246 84 328	234 74 304
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	261 84 310	257 84 314	255 84 316	254 84 318	252 84 320	250 84 322	249 84 324	247 84 325	246 84 328	234 74 304
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	261 84 310	257 84 314	256 84 316	254 84 318	252 84 320	250 84 322	249 84 324	248 84 325	246 84 328	234 74 304
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	261 84 310	257 84 314	256 84 316	254 84 318	252 84 320	250 84 322	248 84 324	247 84 325	246 84 328	234 74 304
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	261 84 310	258 84 314	256 84 316	254 84 318	252 84 320	250 84 322	249 84 324	247 84 325	246 84 328	235 74 304


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**CRUISE CONTROL
ALL ENGINES OPERATING**
PW118A ENGINES**MAXIMUM SPEED CRUISE****CRUISE CONFIGURATION**

NP: 85%

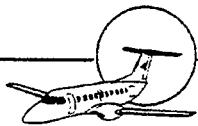
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 6000 FT

WEIGHT KG	IAS	KT	IOAT (°C)									
			-50	-30	-20	-10	0	10	20	30	40	50
12000	TORQUE %	259	255	253	251	249	247	246	245	241	225	225
	F FLOW KG/H/ENG	84	84	84	84	84	84	84	84	82	70	70
	IAS	307	311	313	314	316	318	320	322	319	290	290
11500	TORQUE %	259	256	254	252	250	248	246	245	241	227	227
	F FLOW KG/H/ENG	84	84	84	84	84	84	84	84	82	70	70
	IAS	307	311	313	314	316	318	320	322	319	291	291
11000	TORQUE %	260	256	254	252	250	248	246	245	241	227	227
	F FLOW KG/H/ENG	84	84	84	84	84	84	84	84	82	70	70
	IAS	307	311	313	314	316	318	320	322	319	291	291
10500	TORQUE %	260	256	254	252	250	248	247	246	242	228	228
	F FLOW KG/H/ENG	84	84	84	84	84	84	84	84	82	71	71
	IAS	307	311	313	314	316	318	320	322	319	291	291
10000	TORQUE %	260	256	254	252	251	249	248	246	242	228	228
	F FLOW KG/H/ENG	84	84	84	84	84	84	84	84	82	71	71
	IAS	307	311	313	314	316	318	320	322	319	292	292
9500	TORQUE %	260	256	254	253	251	249	248	246	243	229	229
	F FLOW KG/H/ENG	84	84	84	84	84	84	84	84	82	71	71
	IAS	307	311	313	314	316	318	320	322	319	292	292
9000	TORQUE %	260	256	254	253	251	249	248	246	243	229	229
	F FLOW KG/H/ENG	84	84	84	84	84	84	84	84	82	71	71
	IAS	307	311	313	314	316	318	320	322	319	292	292
8500	TORQUE %	260	256	254	252	250	249	248	246	243	229	229
	F FLOW KG/H/ENG	84	84	84	84	84	84	84	84	82	71	71
	IAS	307	311	313	314	316	318	320	322	319	292	292
8000	TORQUE %	260	256	254	252	250	249	247	245	243	230	230
	F FLOW KG/H/ENG	84	84	84	84	84	84	84	84	82	71	71
	IAS	307	311	313	314	316	318	320	322	319	292	292

20 NOVEMBER 1992



**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 7000 FT

WEIGHT KG	IAS KT % F FLOW KG/H/ENG	258 84 304	IOAT (°C)									
			-50	-30	-20	-10	0	10	20	30	40	50
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	258 84 304	253 84 307	251 84 309	250 84 311	248 84 313	246 84 314	245 84 316	243 84 319	236 79 307	220 67 278
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	258 84 304	254 84 307	252 84 309	250 84 311	248 84 313	246 84 314	245 84 316	243 84 319	236 79 307	221 67 279
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	258 84 304	254 84 307	252 84 309	250 84 311	248 84 313	246 84 314	246 84 316	244 84 319	237 79 307	222 67 279
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	258 84 304	254 84 307	253 84 309	251 84 311	249 84 313	248 84 314	246 84 316	244 84 319	237 79 307	223 67 279
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	258 84 304	255 84 307	253 84 309	251 84 311	249 84 313	248 84 314	246 84 316	245 84 319	238 79 308	224 67 279
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	259 84 304	255 84 307	253 84 309	251 84 311	249 84 313	248 84 314	246 84 316	245 84 319	238 79 308	224 68 279
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	259 84 304	255 84 307	253 84 309	251 84 311	249 84 313	248 84 314	246 84 316	245 84 319	238 79 308	225 68 280
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	258 84 304	255 84 307	253 84 309	251 84 311	250 84 313	248 84 314	246 84 316	245 84 319	238 79 308	225 68 280
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	258 84 304	254 84 307	252 84 309	251 84 311	249 84 313	248 84 314	246 84 316	245 84 319	239 80 308	225 68 280


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

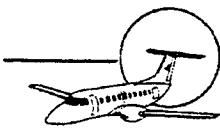
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 8000 FT

			IOAT (°C)									
			-50	-30	-20	-10	0	10	20	30	40	50
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	257 84 301	253 84 304	251 84 306	249 84 307	247 84 309	245 84 311	243 84 312	241 84 314	229 75 293	214 64 266
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	257 84 301	253 84 304	251 84 306	248 84 307	247 84 309	245 84 311	243 84 312	242 84 314	231 75 294	215 64 267
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	257 84 301	253 84 304	251 84 306	249 84 307	248 84 309	246 84 311	244 84 312	242 84 314	231 76 294	217 64 267
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	258 84 301	254 84 304	251 84 306	249 84 307	248 84 309	246 84 311	244 84 312	242 84 314	232 76 294	218 64 267
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	257 84 301	253 84 304	251 84 306	249 84 307	248 84 309	246 84 311	244 84 312	243 84 315	233 76 294	218 64 268
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	257 84 301	253 84 304	251 84 306	250 84 307	248 84 309	246 84 311	244 84 312	243 84 315	233 76 294	219 64 268
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	257 84 301	254 84 304	252 84 306	250 84 307	248 84 309	246 84 311	244 84 312	243 84 315	234 76 295	219 64 268
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	257 84 301	254 84 304	252 84 306	250 84 307	248 84 309	246 84 311	244 84 312	243 84 315	233 76 295	220 65 268
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	257 84 301	254 84 304	252 84 306	250 84 307	248 84 309	246 84 311	244 84 312	243 84 315	233 76 294	221 65 268

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SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

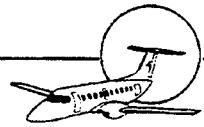
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 9000 FT

WEIGHT KG	IAS KT F FLOW KG/H/ENG	255 84 298	IOAT (°C)									
			-50	-30	-20	-10	0	10	20	30	40	50
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	255 84 298	251 84 301	249 84 303	247 84 304	245 84 306	243 84 307	241 84 309	238 83 307	224 72 281	207 61 254
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	255 84 298	251 84 301	249 84 303	248 84 304	246 84 306	244 84 307	242 84 309	239 83 307	225 72 281	210 61 255
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	256 84 298	252 84 301	250 84 303	248 84 304	246 84 306	244 84 307	242 84 309	239 83 307	226 72 281	211 61 256
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	256 84 298	252 84 301	250 84 303	248 84 304	246 84 306	244 84 307	242 84 309	239 83 308	227 72 282	212 61 256
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	256 84 298	252 84 301	250 84 303	248 84 304	246 84 306	244 84 307	242 84 309	240 83 308	228 72 282	213 61 256
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	256 84 298	252 84 301	250 84 303	248 84 304	246 84 306	245 84 307	243 84 309	241 83 308	228 72 282	214 62 257
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	256 84 298	252 84 301	250 84 303	248 84 304	246 84 306	244 84 307	243 84 309	241 83 308	228 72 282	214 62 257
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	256 84 298	252 84 301	250 84 303	248 84 304	246 84 306	244 84 307	243 84 309	241 83 308	229 73 282	215 62 257
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	256 84 298	252 84 301	250 84 303	248 84 304	246 84 306	245 84 307	243 84 309	240 83 308	229 72 282	216 62 257


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION
NP: 85%
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW
ALTITUDE: 10000 FT

WEIGHT KG	IAS KT F FLOW	TORQUE % KG/H/ENG	IOAT (°C)									
			-50	-40	-30	-20	-10	0	10	20	30	40
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	253 84 295	251 84 297	249 84 298	247 84 300	245 84 301	243 84 303	241 84 304	240 84 307	234 80 297	218 68 268
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	254 84 295	252 84 297	250 84 298	248 84 300	246 84 301	244 84 303	242 84 304	240 84 307	234 80 297	219 69 269
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	254 84 295	252 84 297	250 84 298	248 84 300	246 84 301	244 84 303	242 84 304	241 84 307	234 80 297	221 69 269
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	254 84 295	252 84 297	250 84 298	248 84 300	246 84 301	244 84 303	243 84 304	242 84 307	236 80 297	221 69 269
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	254 84 295	252 84 297	250 84 298	249 84 300	247 84 301	245 84 303	243 84 304	242 84 307	236 80 297	222 69 270
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	254 84 295	252 84 297	251 84 298	249 84 300	247 84 301	245 84 303	243 84 304	242 84 307	236 80 297	223 69 270
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	254 84 295	252 84 297	251 84 298	249 84 300	247 84 301	245 84 303	243 84 304	242 84 307	236 80 297	223 69 270
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	254 84 295	252 84 297	250 84 298	248 84 300	247 84 301	245 84 303	244 84 304	242 84 307	237 80 298	224 69 270
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	254 84 295	252 84 297	250 84 298	249 84 300	247 84 301	245 84 303	243 84 304	242 84 307	237 80 298	224 69 270

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SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

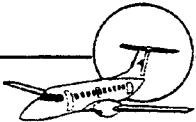
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 11000 FT

WEIGHT KG	IOAT (°C)											
			-50	-40	-30	-20	-10	0	10	20	30	40
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	252 84 293	249 84 294	248 84 296	246 84 297	244 84 298	242 84 300	240 84 301	238 84 303	228 76 284	212 65 257
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	252 84 293	250 84 294	248 84 296	246 84 297	244 84 298	242 84 300	240 84 301	238 84 303	228 76 284	214 65 257
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	252 84 293	250 84 294	248 84 296	246 84 297	244 84 298	242 84 300	241 84 301	239 84 303	230 77 284	215 66 257
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	252 84 293	251 84 294	249 84 296	247 84 297	245 84 298	243 84 300	241 84 301	240 84 303	230 77 284	216 66 258
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	253 84 293	251 84 294	249 84 296	247 84 297	245 84 298	243 84 300	241 84 301	240 84 303	230 77 285	217 66 258
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	253 84 293	251 84 294	249 84 296	247 84 297	245 84 298	243 84 300	241 84 301	240 84 303	231 77 285	218 66 258
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	253 84 293	251 84 294	249 84 296	247 84 297	245 84 298	243 84 300	241 84 301	240 84 303	231 77 285	219 66 259
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	253 84 293	251 84 294	250 84 296	248 84 297	246 84 298	244 84 300	242 84 301	240 84 303	232 77 285	218 66 258
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	253 84 293	251 84 294	249 84 296	247 84 297	246 84 298	244 84 300	242 84 301	241 84 303	232 77 285	219 66 259


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

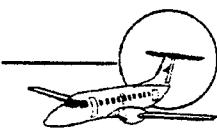
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 12000 FT

WEIGHT KG	IOAT (°C)										
	-50	-40	-30	-20	-10	0	10	20	30	40	
12000	IAS TORQUE F FLOW KG/H/ENG	KT % 251 84 291	249 84 292	246 84 293	244 84 294	242 84 296	240 84 297	238 84 299	234 83 295	221 73 271	206 62 245
11500	IAS TORQUE F FLOW KG/H/ENG	KT % 251 84 291	249 84 292	246 84 293	244 84 294	242 84 296	240 84 297	238 84 299	236 83 296	223 73 271	207 62 245
11000	IAS TORQUE F FLOW KG/H/ENG	KT % 251 84 291	250 84 292	247 84 293	245 84 294	243 84 296	241 84 297	239 84 299	236 83 296	224 73 272	209 62 246
10500	IAS TORQUE F FLOW KG/H/ENG	KT % 252 84 291	250 84 292	247 84 293	245 84 294	243 84 296	241 84 297	239 84 299	236 83 296	224 73 272	211 63 246
10000	IAS TORQUE F FLOW KG/H/ENG	KT % 252 84 291	250 84 292	247 84 293	245 84 294	243 84 296	241 84 297	240 84 299	236 83 296	226 73 272	212 63 247
9500	IAS TORQUE F FLOW KG/H/ENG	KT % 252 84 291	250 84 292	248 84 293	246 84 294	243 84 296	241 84 297	240 84 299	237 83 296	226 73 272	213 63 247
9000	IAS TORQUE F FLOW KG/H/ENG	KT % 252 84 291	250 84 292	248 84 293	246 84 294	244 84 296	242 84 297	240 84 299	237 83 296	227 73 272	213 63 247
8500	IAS TORQUE F FLOW KG/H/ENG	KT % 252 84 291	250 84 292	248 84 293	246 84 294	244 84 296	242 84 297	240 84 299	237 83 296	226 73 272	214 63 247
8000	IAS TORQUE F FLOW KG/H/ENG	KT % 252 84 291	250 84 292	248 84 293	246 84 294	244 84 296	242 84 297	240 84 299	238 83 296	227 73 273	214 63 247

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SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 13000 FT

WEIGHT KG	IAS KT % F FLOW KG/H/ENG	IOAT (°C)											
		-50	-40	-30	-20	-10	0	10	20	30	40		
12000	IAS TORQUE % F FLOW KG/H/ENG	249 84 289	247 84 290	244 84 291	242 84 292	240 84 293	238 84 294	236 84 297	229 80 285	216 69 258	199 59 233		
11500	IAS TORQUE % F FLOW KG/H/ENG	249 84 289	247 84 290	246 84 291	243 84 292	241 84 293	239 84 294	238 84 297	231 80 285	217 69 259	201 59 234		
11000	IAS TORQUE % F FLOW KG/H/ENG	250 84 289	248 84 290	246 84 291	243 84 292	241 84 293	239 84 294	238 84 297	231 80 285	218 70 259	204 59 235		
10500	IAS TORQUE % F FLOW KG/H/ENG	250 84 289	248 84 290	246 84 291	243 84 292	241 84 293	239 84 294	238 84 297	231 80 285	219 70 260	205 60 235		
10000	IAS TORQUE % F FLOW KG/H/ENG	250 84 289	248 84 290	246 84 291	244 84 292	241 84 293	239 84 294	238 84 297	233 80 286	220 70 260	206 60 235		
9500	IAS TORQUE % F FLOW KG/H/ENG	250 84 289	248 84 290	246 84 291	244 84 292	242 84 293	241 84 294	239 84 297	233 80 286	221 70 260	207 60 236		
9000	IAS TORQUE % F FLOW KG/H/ENG	250 84 289	248 84 290	246 84 291	244 84 292	242 84 293	241 84 294	240 84 297	233 80 286	221 70 260	208 60 236		
8500	IAS TORQUE % F FLOW KG/H/ENG	250 84 289	248 84 290	246 84 291	244 84 292	242 84 293	240 84 294	239 84 297	234 80 286	222 70 261	209 60 236		
8000	IAS TORQUE % F FLOW KG/H/ENG	250 84 289	248 84 290	246 84 291	244 84 292	242 84 293	240 84 294	239 84 297	233 80 286	221 70 261	210 60 237		


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**CRUISE CONTROL
ALL ENGINES OPERATING**
PW118A ENGINES**MAXIMUM SPEED CRUISE****CRUISE CONFIGURATION**

NP: 85%

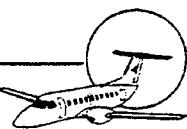
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 14000 FT

WEIGHT KG	IAS	KT	IOAT (°C)									
			-50	-40	-30	-20	-10	0	10	20	30	40
12000	TORQUE F FLOW KG/H/ENG	KT % 84	247 287	245 288	242 289	240 290	238 291	237 292	235 293	224 271	209 246	191 222
11500	TORQUE F FLOW KG/H/ENG	KT % 84	248 287	246 288	244 289	241 290	239 291	237 292	235 293	224 271	210 247	195 223
11000	TORQUE F FLOW KG/H/ENG	KT % 84	248 287	246 288	244 289	241 290	239 291	237 292	235 293	225 272	213 248	197 224
10500	TORQUE F FLOW KG/H/ENG	KT % 84	248 287	246 288	244 289	242 290	240 291	238 292	237 293	227 272	214 248	199 224
10000	TORQUE F FLOW KG/H/ENG	KT % 84	249 287	247 288	245 289	243 290	241 291	239 292	237 293	227 273	214 248	200 225
9500	TORQUE F FLOW KG/H/ENG	KT % 84	249 287	247 288	245 289	243 290	241 291	239 292	237 293	227 273	215 249	202 225
9000	TORQUE F FLOW KG/H/ENG	KT % 84	249 287	247 288	245 289	243 290	241 291	239 292	237 293	228 273	216 249	203 226
8500	TORQUE F FLOW KG/H/ENG	KT % 84	248 287	247 288	245 289	243 290	241 291	239 292	238 293	228 273	217 249	204 226
8000	TORQUE F FLOW KG/H/ENG	KT % 84	249 287	247 288	244 289	242 290	240 291	239 292	237 293	229 273	217 249	205 226

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 15000 FT

WEIGHT KG	IOAT (°C)											
			-50	-40	-30	-20	-10	-5	0	10	20	30
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	246 84 285	244 84 286	241 84 287	239 84 288	237 84 289	236 84 289	235 84 291	230 82 284	217 72 259	202 62 235
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	246 84 285	244 84 286	242 84 287	239 84 288	237 84 289	236 84 289	236 84 291	231 82 285	218 72 259	205 63 236
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	246 84 285	244 84 286	242 84 287	240 84 288	238 84 289	237 84 289	237 84 291	232 82 285	220 72 260	206 63 236
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	247 84 285	245 84 286	243 84 287	241 84 288	239 84 289	237 84 289	237 84 291	233 82 285	221 72 260	208 63 237
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	247 84 285	245 84 286	243 84 287	241 84 288	239 84 289	238 84 289	237 84 291	233 82 285	221 72 260	209 63 237
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	247 84 285	245 84 286	243 84 287	241 84 288	239 84 289	238 84 289	237 84 291	233 82 285	222 73 261	210 63 238
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	247 84 285	245 84 286	243 84 287	241 84 288	239 84 289	238 84 289	238 84 291	234 82 286	223 73 261	210 63 238
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	248 84 285	245 84 286	243 84 287	241 84 288	239 84 289	238 84 289	238 84 291	234 82 286	223 73 261	211 64 238
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	248 84 285	246 84 286	244 84 287	242 84 288	240 84 289	239 84 289	238 84 291	234 82 285	224 73 261	212 64 238


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

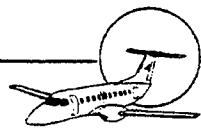
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 16000 FT

WEIGHT KG	IOAT (°C)											
		-50	-40	-30	-20	-10	-5	0	10	20	30	
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	244 84 283	242 84 284	239 84 285	237 84 286	235 84 286	234 84 288	233 84 289	224 78 272	210 68 246	194 59 223
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	244 84 283	242 84 284	240 84 285	237 84 286	235 84 286	235 84 288	234 84 289	226 78 272	213 69 247	198 59 224
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	245 84 283	243 84 284	241 84 285	239 84 286	236 84 286	236 84 288	235 84 289	227 78 273	214 69 248	200 60 225
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	245 84 283	243 84 284	241 84 285	239 84 286	237 84 286	236 84 288	235 84 289	227 78 273	215 69 248	201 60 225
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	245 84 283	243 84 284	241 84 285	239 84 286	237 84 286	236 84 288	235 84 289	228 79 273	216 69 249	204 60 226
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	245 84 283	243 84 284	241 84 285	239 84 286	237 84 286	236 84 288	236 84 289	228 79 273	217 69 249	205 60 226
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	246 84 283	243 84 284	241 84 285	239 84 286	237 84 286	237 84 288	236 84 289	229 79 274	218 69 249	206 60 227
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	246 84 283	244 84 284	242 84 285	240 84 286	238 84 286	237 84 288	236 84 289	229 79 274	218 69 249	206 61 227
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	246 84 283	244 84 284	242 84 285	240 84 286	238 84 286	237 84 288	237 84 289	229 79 274	218 69 249	207 61 227

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

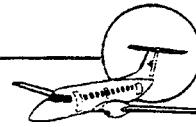
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 17000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-20	-10	-5	0	10	20	30		
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	242 84 282	240 84 283	237 84 283	235 84 284	233 84 286	232 84 287	230 83 284	218 74 259	203 65 234	187 56 212
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	243 84 282	241 84 283	239 84 283	236 84 284	235 84 286	234 84 287	232 83 284	220 74 260	206 65 235	190 56 213
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	243 84 282	241 84 283	239 84 283	237 84 284	235 84 286	234 84 287	232 83 284	221 75 260	208 65 236	193 57 214
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	243 84 282	241 84 283	239 84 283	237 84 284	235 84 286	234 84 287	232 83 284	221 75 260	210 66 237	196 57 215
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	244 84 282	242 84 283	240 84 283	238 84 284	236 84 286	236 84 287	234 84 284	223 75 261	211 66 237	197 57 215
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	245 84 282	243 84 283	240 84 283	238 84 284	237 84 286	236 84 287	234 84 284	224 75 261	212 66 237	199 57 216
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	245 84 282	243 84 283	241 84 283	239 84 284	237 84 286	236 84 287	234 84 284	224 75 261	213 66 238	200 57 216
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	244 84 282	242 84 283	240 84 283	238 84 284	236 84 286	235 84 287	234 84 284	225 75 262	213 66 238	201 57 216
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	244 84 282	242 84 283	240 84 283	238 84 284	237 84 286	236 84 287	234 84 284	224 75 261	213 66 238	202 58 217

**CRUISE CONTROL****ALL ENGINES OPERATING****PW118A ENGINES****MAXIMUM SPEED CRUISE**

CRUISE CONFIGURATION

NP: 85%

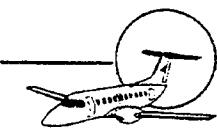
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 18000 FT

WEIGHT KG			IOAT (°C)									
			-50	-40	-30	-20	-10	-5	0	10	20	30
12000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	241 84 281	239 84 281	237 84 282	234 84 282	233 84 285	231 84 283	226 80 273	212 71 247	197 61 223	176 52 200
11500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	241 84 281	239 84 281	237 84 282	234 84 282	233 84 285	231 84 283	226 80 273	213 71 247	199 62 224	181 53 202
11000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	241 84 281	239 84 281	237 84 282	235 84 282	233 84 285	231 84 283	227 80 274	215 71 248	201 62 225	186 53 203
10500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	243 84 281	240 84 281	238 84 282	236 84 282	235 84 285	233 84 283	229 81 274	216 71 248	203 62 225	189 54 204
10000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	243 84 281	241 84 281	238 84 282	236 84 282	235 84 285	233 84 283	229 81 274	217 71 249	205 63 226	181 54 205
9500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	243 84 281	241 84 281	239 84 282	236 84 282	235 84 285	233 84 283	229 81 274	218 71 249	206 63 226	193 54 205
9000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	243 84 281	241 84 281	239 84 282	237 84 282	235 84 285	234 84 283	230 81 275	219 72 250	207 63 227	194 54 206
8500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	243 84 281	241 84 281	239 84 282	237 84 282	236 84 285	234 84 283	230 81 275	219 72 250	208 63 227	196 55 206
8000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	243 84 281	241 84 281	239 84 282	237 84 282	236 84 285	234 84 283	231 81 275	220 72 250	209 63 227	197 55 206

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SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

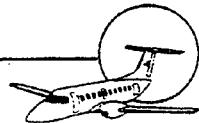
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 19000 FT

WEIGHT KG	IAS KT % F FLOW KG/H/ENG	IOAT (°C)										
		-50	-40	-30	-20	-10	-5	0	10	20	30	
12000	IAS TORQUE % F FLOW KG/H/ENG	239 84 279	237 84 280	235 84 281	232 84 282	230 84 281	225 81 273	219 76 260	205 67 235	188 58 211	- - -	
11500	IAS TORQUE % F FLOW KG/H/ENG	239 84 279	237 84 280	235 84 281	233 84 282	230 84 281	226 81 273	220 77 261	207 67 236	191 58 212	171 50 191	
11000	IAS TORQUE % F FLOW KG/H/ENG	241 84 279	238 84 280	236 84 281	234 84 282	232 84 282	228 81 274	222 77 262	209 68 236	195 59 214	177 50 192	
10500	IAS TORQUE % F FLOW KG/H/ENG	241 84 279	239 84 280	236 84 281	234 84 282	232 84 282	228 81 274	223 77 262	210 68 237	197 59 214	181 51 193	
10000	IAS TORQUE % F FLOW KG/H/ENG	241 84 279	239 84 280	237 84 281	235 84 282	233 84 282	229 81 274	223 77 262	211 68 237	199 59 215	184 51 194	
9500	IAS TORQUE % F FLOW KG/H/ENG	241 83 278	239 84 280	237 84 281	235 84 282	233 84 282	229 81 274	224 77 263	212 68 238	200 60 215	186 51 195	
9000	IAS TORQUE % F FLOW KG/H/ENG	241 84 279	239 84 280	237 84 281	235 84 282	233 84 282	230 81 275	225 77 263	213 68 238	201 60 216	188 52 196	
8500	IAS TORQUE % F FLOW KG/H/ENG	241 83 277	240 84 280	237 84 281	236 84 282	234 84 282	230 81 275	225 77 263	214 68 238	203 60 216	190 52 196	
8000	IAS TORQUE % F FLOW KG/H/ENG	241 83 277	240 84 280	238 84 281	236 84 282	234 84 282	231 82 275	226 77 263	215 68 239	204 60 217	192 52 197	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

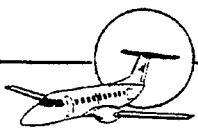
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 20000 FT

WEIGHT KG	IAS KT F FLOW KG/H/ENG	TORQUE % KG/H/ENG	IOAT (°C)									
			-50	-40	-30	-20	-15	-10	-5	0	10	20
12000	IAS KT F FLOW KG/H/ENG	237 83 274	235 84 279	233 84 279	231 84 281	229 84 280	225 81 272	219 77 260	213 73 248	198 64 223	178 54 200	
11500	IAS KT F FLOW KG/H/ENG	237 82 272	236 84 279	234 84 279	232 84 281	231 84 280	227 81 273	221 77 261	215 73 249	200 64 224	183 55 201	
11000	IAS KT F FLOW KG/H/ENG	237 81 271	236 84 279	234 84 279	233 84 281	231 84 280	227 82 273	222 77 262	216 73 249	203 64 225	187 56 202	
10500	IAS KT F FLOW KG/H/ENG	237 81 269	237 83 275	235 84 279	233 84 281	231 84 280	228 82 274	223 78 262	217 73 250	204 64 225	190 56 204	
10000	IAS KT F FLOW KG/H/ENG	237 81 268	237 82 273	235 84 279	233 84 281	232 84 280	228 82 274	223 78 262	218 74 250	206 65 226	192 56 204	
9500	IAS KT F FLOW KG/H/ENG	237 80 267	237 82 273	236 84 279	233 84 281	232 84 280	229 82 274	224 78 263	219 74 251	207 65 227	194 56 205	
9000	IAS KT F FLOW KG/H/ENG	237 80 266	237 82 272	235 84 279	234 84 281	233 84 281	229 82 274	224 78 263	219 74 251	208 65 227	196 57 206	
8500	IAS KT F FLOW KG/H/ENG	237 80 266	237 82 271	236 84 279	234 84 281	233 84 281	230 82 274	225 78 263	220 74 251	209 65 227	197 57 206	
8000	IAS KT F FLOW KG/H/ENG	237 80 266	237 81 271	236 84 279	234 84 281	233 84 281	230 82 274	225 78 263	220 74 251	210 65 228	198 57 206	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

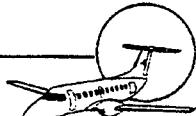
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 21000 FT

WEIGHT KG	IOAT (°C)											
			-50	-40	-30	-20	-15	-10	-5	0	10	20
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	232 80 265	232 82 273	231 84 279	228 84 279	225 82 272	219 78 260	212 73 248	206 69 236	189 60 211	- - -
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	232 79 263	232 82 271	232 84 279	230 84 279	226 82 273	221 78 261	215 74 249	208 69 237	193 60 212	174 52 190
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	232 79 261	232 81 269	232 83 275	230 84 279	227 82 273	222 78 261	216 74 249	210 70 238	196 61 214	179 52 192
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	232 78 260	232 80 265	232 82 274	232 84 279	228 82 274	222 78 262	217 74 250	211 70 238	198 61 214	183 53 193
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	232 78 258	232 79 263	232 82 272	232 84 279	229 82 274	224 78 262	219 74 250	213 70 239	200 61 215	185 53 194
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	232 77 257	232 79 262	232 81 271	232 84 279	229 82 274	225 78 263	219 74 251	214 70 239	202 62 216	189 54 195
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	232 77 256	232 79 261	232 81 270	232 83 276	230 82 274	225 78 263	220 74 251	215 70 240	203 62 216	191 54 196
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	232 77 256	232 78 261	232 81 269	232 83 276	230 82 274	226 79 263	221 75 251	216 70 240	203 62 216	191 54 196
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	232 77 255	232 78 260	232 81 269	232 83 275	230 82 274	225 79 263	220 74 251	215 70 240	204 62 217	193 54 196


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

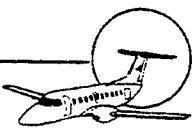
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 22000 FT

WEIGHT KG	IAS KT F FLOW	TORQUE % KG/H/ENG	IOAT (°C)									
			-50	-40	-30	-20	-15	-10	-5	0	10	20
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	227 78 257	227 80 264	227 82 271	225 82 272	219 78 260	213 74 248	205 70 236	198 65 224	179 56 200	- - -
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	227 77 254	227 79 261	227 81 268	226 82 273	220 78 260	214 74 248	208 70 237	201 66 225	185 57 201	- - -
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	227 76 252	227 78 259	227 80 266	226 82 273	221 78 261	216 74 249	210 70 238	203 66 226	188 57 202	169 49 181
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	227 75 250	227 78 257	227 80 264	227 81 270	223 79 262	218 75 250	212 70 238	206 66 227	192 58 204	174 50 183
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	227 75 249	227 76 254	227 79 262	227 81 268	224 79 262	218 75 250	213 71 239	207 67 227	194 58 204	179 50 184
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	227 74 247	227 76 252	227 78 261	227 80 267	224 79 262	219 75 250	214 71 239	208 67 228	196 58 205	182 51 185
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	227 74 246	227 76 251	227 78 259	227 80 266	225 79 263	220 75 251	215 71 240	209 67 228	197 59 205	185 51 186
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	227 74 246	227 75 251	227 78 259	227 80 265	225 79 263	220 75 251	215 71 240	210 67 229	199 59 206	187 51 187
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	227 74 245	227 75 250	227 78 258	227 79 264	226 79 263	221 75 251	216 71 240	210 67 229	199 59 206	187 51 187

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

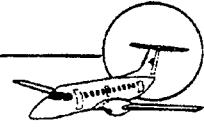
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 23000 FT

WEIGHT KG	IAS	KT	IOAT (°C)									
			-50	-40	-30	-20	-15	-10	-5	0	10	20
12000	TORQUE %	223 75	223 77	223 79	218 78	213 74	206 70	199 66	191 62	-	-	-
	F FLOW KG/H/ENG	248	256	262	259	247	235	224	212	-	-	-
11500	TORQUE %	223 74	223 76	223 78	220 78	214 74	208 70	201 66	194 62	174 53	-	-
	F FLOW KG/H/ENG	246	253	259	260	248	236	225	214	190	-	-
11000	TORQUE %	223 73	223 76	223 77	221 78	216 75	210 71	204 67	196 63	180 54	-	-
	F FLOW KG/H/ENG	244	250	257	260	249	237	226	215	192	-	-
10500	TORQUE %	223 73	223 75	223 77	222 79	217 75	211 71	206 67	199 63	184 55	164 47	173
	F FLOW KG/H/ENG	242	248	255	261	249	238	227	215	193	184	173
10000	TORQUE %	223 72	223 73	223 76	223 78	218 75	213 71	207 67	201 63	187 55	171 47	174
	F FLOW KG/H/ENG	240	244	253	259	250	239	227	216	194	187	174
9500	TORQUE %	223 72	223 73	223 76	223 77	219 75	214 71	208 67	202 63	189 55	175 48	175
	F FLOW KG/H/ENG	238	243	251	257	250	239	228	217	194	189	175
9000	TORQUE %	223 71	223 73	223 75	223 77	219 75	214 71	209 67	204 64	191 55	178 48	176
	F FLOW KG/H/ENG	237	241	249	256	250	239	228	217	195	181	176
8500	TORQUE %	223 71	223 72	223 75	223 77	220 75	215 71	210 68	205 64	193 56	181 48	177
	F FLOW KG/H/ENG	236	241	248	254	251	239	228	218	196	182	177
8000	TORQUE %	223 71	223 72	223 74	223 76	221 75	216 72	211 68	206 64	194 56	182 49	178
	F FLOW KG/H/ENG	235	240	248	254	251	240	229	218	196	182	178



CRUISE CONTROL

ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 24000 FT

WEIGHT KG	IAS KT	TORQUE %	F FLOW KG/H/ENG	IOAT (°C)									
				-50	-40	-30	-20	-15	-10	-5	0	10	20
12000	IAS KT	218	218	218	212	205	198	190	181	-	-	-	-
	TORQUE %	73	75	77	74	70	66	62	58	-	-	-	-
	F FLOW KG/H/ENG	240	248	255	247	235	223	212	200	-	-	-	-
11500	IAS KT	218	218	218	214	207	201	193	185	-	-	-	-
	TORQUE %	72	74	76	75	71	67	63	59	-	-	-	-
	F FLOW KG/H/ENG	237	245	251	247	236	225	213	202	-	-	-	-
11000	IAS KT	218	218	218	215	210	204	197	190	169	-	-	-
	TORQUE %	71	73	75	75	71	67	63	59	51	-	-	-
	F FLOW KG/H/ENG	235	242	248	248	237	226	214	203	180	-	-	-
10500	IAS KT	218	218	218	216	211	205	199	192	176	-	-	-
	TORQUE %	70	72	74	75	71	67	64	60	51	-	-	-
	F FLOW KG/H/ENG	233	240	246	249	237	226	215	204	182	-	-	-
10000	IAS KT	218	218	218	217	212	207	201	194	179	161	-	-
	TORQUE %	70	72	73	75	71	68	64	60	52	44	-	-
	F FLOW KG/H/ENG	231	237	243	249	238	227	216	205	183	164	-	-
9500	IAS KT	218	218	218	218	213	208	202	196	182	167	-	-
	TORQUE %	69	70	73	75	72	68	64	60	52	45	-	-
	F FLOW KG/H/ENG	229	233	241	247	238	228	217	206	184	166	-	-
9000	IAS KT	218	218	218	218	214	209	203	198	185	171	-	-
	TORQUE %	68	70	72	74	72	68	64	60	52	45	-	-
	F FLOW KG/H/ENG	228	232	240	246	239	228	217	207	185	167	-	-
8500	IAS KT	218	218	218	218	215	210	205	199	187	174	-	-
	TORQUE %	68	69	72	74	72	68	64	61	53	46	-	-
	F FLOW KG/H/ENG	226	231	238	244	239	228	218	207	186	168	-	-
8000	IAS KT	218	218	218	218	215	211	206	200	189	177	-	-
	TORQUE %	68	69	71	73	72	68	64	61	53	46	-	-
	F FLOW KG/H/ENG	225	230	237	243	239	229	218	207	186	169	-	-

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SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

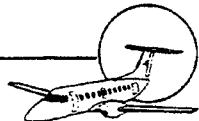
PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION
NP: 85%
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

ALTITUDE: 25000 FT

WEIGHT KG	IAS KT F FLOW KG/H/ENG	TORQUE % F FLOW KG/H/ENG	IOAT (°C)									
			-50	-40	-30	-25	-20	-15	-10	-5	0	10
12000	IAS KT F FLOW KG/H/ENG	214 71 233	214 73 241	214 75 248	210 74 244	204 70 234	197 67 222	190 63 211	180 59 200	- - -	- - -	- - -
11500	IAS KT F FLOW KG/H/ENG	214 70 230	214 72 237	214 74 244	213 74 246	207 71 235	201 67 224	194 63 213	185 59 201	175 55 190	- - -	- - -
11000	IAS KT F FLOW KG/H/ENG	214 69 227	214 71 234	214 73 240	214 74 246	209 71 236	203 67 225	196 64 214	189 60 203	181 56 192	- - -	- - -
10500	IAS KT F FLOW KG/H/ENG	214 68 225	214 70 232	214 72 237	214 73 241	210 71 237	204 68 225	199 64 215	192 60 204	185 56 193	165 48 171	- - -
10000	IAS KT F FLOW KG/H/ENG	214 67 223	214 69 229	214 71 235	214 72 238	212 72 237	207 68 226	200 64 215	194 60 205	187 57 194	171 49 173	- - -
9500	IAS KT F FLOW KG/H/ENG	214 67 221	214 68 227	214 70 233	214 71 236	213 72 238	208 68 227	203 64 216	196 61 206	190 57 195	175 49 174	- - -
9000	IAS KT F FLOW KG/H/ENG	214 66 219	214 67 223	214 70 231	214 70 234	214 71 236	209 68 227	204 65 217	198 61 206	192 57 196	178 50 175	- - -
8500	IAS KT F FLOW KG/H/ENG	214 65 218	214 67 222	214 69 229	214 70 232	214 71 235	209 68 228	204 65 217	199 61 207	193 57 196	181 50 176	- - -
8000	IAS KT F FLOW KG/H/ENG	214 65 217	214 66 221	214 69 228	214 69 231	214 70 234	210 68 228	205 65 217	200 61 207	195 58 197	183 50 177	- - -


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 26000 FT

	WEIGHT KG	IOAT (°C)									
		-50	-40	-30	-25	-20	-15	-10	-5	0	10
12000	IAS TORQUE F FLOW KG/H/ENG	209 68 226	209 71 234	209 73 242	203 70 232	196 67 222	189 63 210	179 59 199	- - -	- - -	- - -
11500	IAS TORQUE F FLOW KG/H/ENG	209 68 223	209 70 231	209 71 236	206 70 233	200 67 223	193 63 212	185 60 201	174 55 189	- - -	- - -
11000	IAS TORQUE F FLOW KG/H/ENG	209 67 220	209 69 227	209 71 234	207 71 234	202 67 224	196 64 213	189 60 202	181 56 192	170 52 180	- - -
10500	IAS TORQUE F FLOW KG/H/ENG	209 66 217	209 68 224	209 69 230	209 70 234	205 68 225	198 64 214	191 60 203	184 57 193	176 53 182	- - -
10000	IAS TORQUE F FLOW KG/H/ENG	209 65 215	209 67 221	209 68 227	209 69 230	206 68 226	201 64 215	195 61 205	187 57 194	180 53 184	161 46 163
9500	IAS TORQUE F FLOW KG/H/ENG	209 64 213	209 66 219	209 68 224	209 69 227	207 68 226	202 65 216	197 61 205	190 57 195	183 54 185	167 46 165
9000	IAS TORQUE F FLOW KG/H/ENG	209 64 211	209 65 217	209 67 222	209 68 225	208 68 227	203 65 216	198 61 206	192 58 196	185 54 185	171 47 166
8500	IAS TORQUE F FLOW KG/H/ENG	209 63 209	209 64 213	209 66 220	209 67 223	209 68 227	205 65 217	199 61 206	193 58 196	187 54 186	174 47 167
8000	IAS TORQUE F FLOW KG/H/ENG	209 63 208	209 64 212	209 66 219	209 67 222	209 68 224	205 65 217	200 62 207	195 58 197	189 55 187	177 47 168

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 27000 FT

WEIGHT KG	IOAT (°C)										
	-50	-40	-30	-25	-20	-15	-10	-5	0	10	
12000	IAS KT % F FLOW KG/H/ENG	205 66 219	205 68 228	202 70 230	196 66 220	187 63 209	178 59 198	- - -	- - -	- - -	
11500	IAS TORQUE % F FLOW KG/H/ENG	205 65 216	205 68 224	204 70 231	198 67 221	192 63 211	184 60 200	174 56 189	- - -	- - -	
11000	IAS TORQUE % F FLOW KG/H/ENG	205 65 213	205 67 220	205 69 227	200 67 222	195 64 212	188 60 202	180 57 191	170 53 180	- - -	
10500	IAS TORQUE % F FLOW KG/H/ENG	205 64 210	205 66 217	205 68 223	203 67 223	198 64 213	192 61 203	184 57 192	176 53 182	165 49 171	
10000	IAS TORQUE % F FLOW KG/H/ENG	205 63 207	205 65 214	205 66 219	205 67 225	200 65 214	194 61 204	188 58 194	181 54 184	171 50 173	
9500	IAS TORQUE % F FLOW KG/H/ENG	205 62 205	205 64 211	205 65 216	205 66 219	201 65 215	196 61 205	190 58 194	184 54 185	175 51 174	
9000	IAS TORQUE % F FLOW KG/H/ENG	205 61 203	205 63 209	205 65 214	205 65 217	203 65 216	197 61 205	192 58 195	186 55 185	180 51 176	
8500	IAS TORQUE % F FLOW KG/H/ENG	205 61 201	205 62 205	205 64 212	205 65 214	204 65 216	199 62 206	194 58 196	188 55 186	181 51 176	
8000	IAS TORQUE % F FLOW KG/H/ENG	205 60 199	205 61 203	205 63 210	205 64 213	205 65 215	200 62 206	194 58 196	189 55 187	183 52 177	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

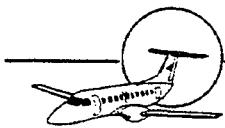
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 28000 FT

WEIGHT KG	IOAT (°C)										
	-50	-40	-30	-25	-20	-15	-10	-5	0	10	
12000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	200 66 217	200 68 222	194 66 218	186 62 207	176 59 197	- - -	- - -	- - -	
11500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	200 64 210	200 66 218	196 66 219	190 63 209	183 60 199	173 56 188	- - -	- - -	
11000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	200 63 207	200 65 214	200 67 220	194 63 210	187 60 201	179 57 190	169 53 179	- - -	
10500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	200 62 204	200 64 210	200 66 215	196 64 211	191 61 202	184 57 192	175 54 181	165 50 171	
10000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	200 61 200	200 62 207	200 63 212	198 64 212	193 61 203	187 58 193	180 54 183	172 51 173	161 47 162
9500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	200 60 198	200 62 204	200 63 209	200 64 212	195 61 204	189 58 194	183 55 184	176 51 174	168 47 164
9000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	200 59 196	200 61 201	200 62 206	200 63 209	197 62 205	191 58 194	186 55 185	179 51 175	172 48 165
8500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	200 58 193	200 60 199	200 61 204	200 62 206	198 62 205	193 58 195	188 55 186	182 52 176	175 48 166
8000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	200 58 192	200 59 195	200 61 202	200 62 204	199 62 205	195 59 196	189 55 186	183 52 177	177 49 167
											164 42 150

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ALL ENGINES OPERATING

PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 29000 FT

WEIGHT KG	IAS	KT	IOAT (°C)									
			-50	-40	-30	-25	-20	-15	-10	-5	0	10
12000	IAS	KT	196	196	184	174	-	-	-	-	-	-
	TORQUE	%	64	67	62	58	-	-	-	-	-	-
	F FLOW	KG/H/ENG	212	220	205	194	-	-	-	-	-	-
11500	IAS	KT	196	196	188	181	171	-	-	-	-	-
	TORQUE	%	63	65	63	59	56	-	-	-	-	-
	F FLOW	KG/H/ENG	207	214	207	197	186	-	-	-	-	-
11000	IAS	KT	196	196	192	186	177	167	-	-	-	-
	TORQUE	%	61	64	63	60	57	53	-	-	-	-
	F FLOW	KG/H/ENG	200	208	208	199	189	178	-	-	-	-
10500	IAS	KT	196	196	195	189	183	175	164	-	-	-
	TORQUE	%	60	62	63	60	57	54	50	-	-	-
	F FLOW	KG/H/ENG	197	204	210	200	191	180	170	-	-	-
10000	IAS	KT	196	196	196	192	186	179	171	160	-	-
	TORQUE	%	59	61	63	61	58	54	51	47	-	-
	F FLOW	KG/H/ENG	194	200	205	201	192	182	172	162	-	-
9500	IAS	KT	196	196	196	194	188	182	175	168	158	-
	TORQUE	%	58	59	61	61	58	55	51	48	44	-
	F FLOW	KG/H/ENG	191	197	202	202	193	183	173	164	154	-
9000	IAS	KT	196	196	196	195	190	185	179	172	164	-
	TORQUE	%	57	59	60	61	58	55	52	48	45	-
	F FLOW	KG/H/ENG	189	194	199	203	194	184	175	165	156	-
8500	IAS	KT	196	196	196	196	192	187	181	175	168	151
	TORQUE	%	56	58	59	60	59	55	52	49	45	39
	F FLOW	KG/H/ENG	186	191	196	198	194	185	175	166	157	140
8000	IAS	KT	196	196	196	196	194	189	183	178	171	157
	TORQUE	%	55	57	58	59	59	56	52	49	46	40
	F FLOW	KG/H/ENG	184	189	194	196	195	186	176	167	158	142


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 30000 FT

	WEIGHT KG	IOAT (°C)									
		-50	-40	-35	-30	-25	-20	-15	-10	-5	0
12000	IAS KT TORQUE % F FLOW KG/H/ENG	191 63 208	189 65 213	181 61 202	170 58 191	- - -	- - -	- - -	- - -	- - -	- - -
11500	IAS KT TORQUE % F FLOW KG/H/ENG	191 61 202	191 64 210	187 62 205	178 59 194	168 55 184	- - -	- - -	- - -	- - -	- - -
11000	IAS KT TORQUE % F FLOW KG/H/ENG	191 60 198	191 62 206	190 63 206	184 59 196	176 56 187	165 53 177	- - -	- - -	- - -	- - -
10500	IAS KT TORQUE % F FLOW KG/H/ENG	191 58 191	191 60 197	191 62 200	187 60 198	181 57 189	173 54 179	163 50 169	- - -	- - -	- - -
10000	IAS KT TORQUE % F FLOW KG/H/ENG	191 57 188	191 59 194	191 60 197	190 60 199	184 57 190	178 54 181	170 51 171	160 47 161	- - -	- - -
9500	IAS KT TORQUE % F FLOW KG/H/ENG	191 56 184	191 58 190	191 58 193	191 59 196	187 58 191	181 55 182	175 52 173	167 48 163	157 45 154	- - -
9000	IAS KT TORQUE % F FLOW KG/H/ENG	191 55 181	191 56 187	191 57 189	191 58 192	190 58 192	184 55 183	178 52 174	171 49 165	164 45 156	154 42 146
8500	IAS KT TORQUE % F FLOW KG/H/ENG	191 54 179	191 56 184	191 56 186	191 57 189	191 58 191	186 55 184	181 52 175	175 49 166	168 46 157	160 43 148
8000	IAS KT TORQUE % F FLOW KG/H/ENG	191 53 177	191 55 181	191 55 184	191 56 186	191 57 188	188 56 185	183 53 176	177 49 166	171 46 158	164 43 149

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALCRUISE CONTROL
ALL ENGINES OPERATING

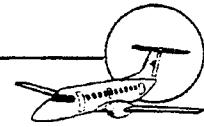
PW118A ENGINES

MAXIMUM SPEED CRUISE

CRUISE CONFIGURATION
NP: 85%
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

ALTITUDE: 31000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-35	-30	-25	-20	-15	-10	-5	0		
12000	IAS KT	187	178	-	-	-	-	-	-	-	-	-
	TORQUE %	62	61	-	-	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	207	200	-	-	-	-	-	-	-	-	-
11500	IAS KT	187	184	175	-	-	-	-	-	-	-	-
	TORQUE %	60	61	58	-	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	199	202	192	-	-	-	-	-	-	-	-
11000	IAS KT	187	187	181	174	162	-	-	-	-	-	-
	TORQUE %	59	60	59	56	52	-	-	-	-	-	-
	F FLOW KG/H/ENG	194	201	194	184	174	-	-	-	-	-	-
10500	IAS KT	187	187	185	179	171	161	-	-	-	-	-
	TORQUE %	57	59	59	56	53	50	-	-	-	-	-
	F FLOW KG/H/ENG	189	196	196	187	177	167	-	-	-	-	-
10000	IAS KT	187	187	187	182	176	169	159	-	-	-	-
	TORQUE %	55	58	58	57	54	51	48	-	-	-	-
	F FLOW KG/H/ENG	182	188	192	188	179	170	160	-	-	-	-
9500	IAS KT	187	187	187	186	180	174	166	156	-	-	-
	TORQUE %	54	56	57	57	55	52	48	45	-	-	-
	F FLOW KG/H/ENG	179	185	188	189	181	172	162	153	-	-	-
9000	IAS KT	187	187	187	187	184	177	170	163	154	-	-
	TORQUE %	53	55	56	56	55	52	49	46	42	-	-
	F FLOW KG/H/ENG	176	181	184	187	182	173	164	155	146	-	-
8500	IAS KT	187	187	187	187	186	180	174	167	160	151	
	TORQUE %	52	54	55	55	55	52	49	46	43	40	
	F FLOW KG/H/ENG	173	178	180	183	183	174	165	156	147	139	
8000	IAS KT	187	187	187	187	187	182	177	171	164	156	
	TORQUE %	52	53	54	54	55	53	50	47	43	40	
	F FLOW KG/H/ENG	171	175	178	180	182	175	166	157	149	140	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
MAXIMUM SPEED CRUISE
CRUISE CONFIGURATION

NP: 85%

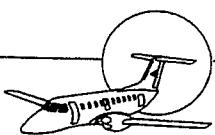
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 32000 FT

WEIGHT KG	IAS KT	TORQUE %	F FLOW KG/H/ENG	IOAT (°C)								
				-50	-40	-35	-30	-25	-20	-15	-10	-5
12000	IAS KT	182	-	-	-	-	-	-	-	-	-	-
	TORQUE %	62	-	-	-	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	206	-	-	-	-	-	-	-	-	-	-
11500	IAS KT	183	173	-	-	-	-	-	-	-	-	-
	TORQUE %	59	57	-	-	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	198	189	-	-	-	-	-	-	-	-	-
11000	IAS KT	183	179	171	-	-	-	-	-	-	-	-
	TORQUE %	58	58	55	-	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	190	192	182	-	-	-	-	-	-	-	-
10500	IAS KT	183	183	176	169	158	-	-	-	-	-	-
	TORQUE %	56	56	56	53	50	-	-	-	-	-	-
	F FLOW KG/H/ENG	185	191	184	175	165	-	-	-	-	-	-
10000	IAS KT	183	183	181	174	167	156	-	-	-	-	-
	TORQUE %	55	55	56	53	51	47	-	-	-	-	-
	F FLOW KG/H/ENG	180	186	186	177	168	159	-	-	-	-	-
9500	IAS KT	183	183	183	179	172	164	155	-	-	-	-
	TORQUE %	53	54	55	54	51	48	45	-	-	-	-
	F FLOW KG/H/ENG	174	180	183	178	170	161	152	-	-	-	-
9000	IAS KT	183	183	183	182	177	169	162	152	-	-	-
	TORQUE %	52	53	54	54	52	49	46	43	-	-	-
	F FLOW KG/H/ENG	171	176	180	180	172	163	154	145	-	-	-
8500	IAS KT	183	183	183	183	179	173	167	159	151	-	-
	TORQUE %	51	52	53	54	52	49	46	43	40	-	-
	F FLOW KG/H/ENG	167	173	175	178	172	164	155	147	138	-	-
8000	IAS KT	183	183	183	183	181	176	170	164	157	148	-
	TORQUE %	50	51	52	53	52	50	47	44	41	38	-
	F FLOW KG/H/ENG	165	170	172	174	174	165	156	148	140	132	-

20 NOVEMBER 1992



EMBRAER
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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CRUISE CONTROL

CRUISE CONTROL
ALL ENGINES OPERATING
INTERMEDIATE CRUISE

PW118A/B ENGINES

CRUISE CONFIGURATION

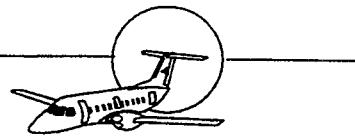
NP: 85%

BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 5000 FT

WEIGHT KG	IOAT (° C)											
	-50	-30	-20	-10	0	10	20	30	40	50		
12000	IAS	KT	235	232	230	229	227	225	223	222	221	219
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	262	266	268	270	273	274	277	279	280	283
11500	IAS	KT	236	232	231	229	227	226	224	223	221	220
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	262	266	268	270	273	274	277	279	280	283
11000	IAS	KT	236	233	231	230	228	226	225	223	222	221
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	262	266	268	270	273	274	277	279	280	283
10500	IAS	KT	237	233	232	230	229	227	225	224	223	221
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	262	266	268	270	273	274	277	279	280	283
10000	IAS	KT	237	234	232	231	229	227	226	224	223	222
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	262	266	268	270	272	274	277	279	280	283
9500	IAS	KT	237	234	232	231	229	228	226	225	224	222
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	262	266	268	270	272	274	277	279	280	283
9000	IAS	KT	237	234	233	231	230	228	227	225	224	223
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	262	266	268	270	272	274	277	279	280	283
8500	IAS	KT	237	234	233	231	230	228	227	225	224	223
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	262	266	268	270	272	274	277	279	280	283
8000	IAS	KT	237	234	233	231	230	228	227	226	224	223
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	262	266	268	270	272	274	277	279	280	283


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

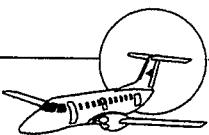
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 6000 FT

WEIGHT KG	IAS	KT	234	230	229	227	225	224	222	220	220	219	217	IOAT (° C)	
														-50	-30
12000	TORQUE	%	65	65	65	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	258	262	264	266	268	270	272	274	276	276	276	278	278
	IAS	KT	234	231	229	228	226	224	223	221	220	220	218		
11500	TORQUE	%	65	65	65	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	258	262	264	266	268	270	272	274	276	276	276	278	278
	IAS	KT	235	231	230	228	227	225	223	222	220	220	219		
11000	TORQUE	%	65	65	65	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	258	262	264	266	268	270	272	274	276	276	276	278	278
	IAS	KT	235	232	230	229	227	225	224	222	221	221	220		
10500	TORQUE	%	65	65	65	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	258	262	264	266	268	270	272	274	276	276	276	278	278
	IAS	KT	236	232	231	229	228	226	224	223	222	222	220		
10000	TORQUE	%	65	65	65	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	258	262	264	266	268	270	272	274	276	276	276	278	278
	IAS	KT	236	233	231	229	228	226	225	223	222	222	221		
9500	TORQUE	%	65	65	65	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	258	262	264	266	268	270	272	274	276	276	276	278	278
	IAS	KT	236	233	231	230	228	227	225	224	222	222	221		
9000	TORQUE	%	65	65	65	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	258	262	264	266	268	270	272	274	276	276	276	278	278
	IAS	KT	236	233	231	230	228	227	225	224	223	223	222		
8500	TORQUE	%	65	65	65	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	258	262	264	266	268	270	272	274	276	276	276	278	278
	IAS	KT	236	233	231	230	229	227	226	224	223	223	222		
8000	TORQUE	%	65	65	65	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	258	262	264	266	268	270	272	274	276	276	276	278	278

17 MARCH 1999



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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CRUISE CONTROL

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

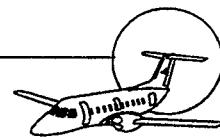
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 7000 FT

WEIGHT KG	IOAT (° C)											
	-50	-30	-20	-10	0	10	20	30	40	50		
12000	IAS	KT	232	229	227	225	224	222	220	219	217	216
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	254	259	260	262	264	266	268	270	272	274
11500	IAS	KT	233	229	228	226	224	223	221	220	218	217
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	254	259	260	262	264	266	268	270	272	274
11000	IAS	KT	233	230	228	227	225	223	222	220	219	217
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	254	259	260	262	264	266	268	270	272	274
10500	IAS	KT	234	230	229	227	226	224	222	221	220	218
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	254	259	260	262	264	266	268	270	272	274
10000	IAS	KT	234	231	229	228	226	224	223	221	220	219
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	254	259	260	262	264	266	268	270	272	274
9500	IAS	KT	234	231	230	228	226	225	223	222	221	219
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	254	259	260	262	264	266	268	270	272	274
9000	IAS	KT	235	231	230	228	227	225	224	222	221	220
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	254	259	260	262	264	266	268	270	272	274
8500	IAS	KT	235	232	230	229	227	225	224	223	221	220
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	254	259	260	262	264	266	268	270	272	274
8000	IAS	KT	235	232	230	229	227	226	224	223	222	220
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	254	259	260	262	264	266	268	270	272	274


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION
NP: 85%
BLEED SWITCH : AUTO
PACK CONTROL SELECTOR : LOW

ALTITUDE: 8000 FT

WEIGHT KG	IAS	KT	IOAT (° C)									
			-50	-30	-20	-10	0	10	20	30	40	50
12000	TORQUE	%	65	65	65	65	65	65	65	65	65	64
	F FLOW	KG/H/ENG	251	255	257	259	260	262	264	266	268	266
	IAS	KT	231	227	226	224	222	220	219	217	215	213
11500	TORQUE	%	65	65	65	65	65	65	65	65	65	64
	F FLOW	KG/H/ENG	251	255	257	259	260	262	264	266	268	267
	IAS	KT	232	228	226	225	223	221	219	218	216	215
11000	TORQUE	%	65	65	65	65	65	65	65	65	65	64
	F FLOW	KG/H/ENG	251	255	257	259	260	262	264	266	268	267
	IAS	KT	232	229	227	225	224	222	220	219	217	217
10500	TORQUE	%	65	65	65	65	65	65	65	65	65	64
	F FLOW	KG/H/ENG	251	255	257	259	260	262	264	266	268	267
	IAS	KT	232	229	227	226	224	222	221	219	218	218
10000	TORQUE	%	65	65	65	65	65	65	65	65	65	64
	F FLOW	KG/H/ENG	251	255	257	259	260	262	264	266	268	268
	IAS	KT	233	229	228	226	225	223	221	220	219	218
9500	TORQUE	%	65	65	65	65	65	65	65	65	65	64
	F FLOW	KG/H/ENG	251	255	257	259	260	262	264	266	268	268
	IAS	KT	233	230	228	227	225	223	222	220	219	219
9000	TORQUE	%	65	65	65	65	65	65	65	65	65	64
	F FLOW	KG/H/ENG	251	255	257	259	260	262	264	266	268	268
	IAS	KT	233	230	228	227	225	224	222	221	220	219
8500	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	251	255	257	259	260	262	264	266	268	268
	IAS	KT	233	230	229	227	226	224	223	221	220	220
8000	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	251	255	257	259	260	262	264	266	268	268
	IAS	KT	234	230	229	227	226	224	223	221	220	221

17 MARCH 1999

SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

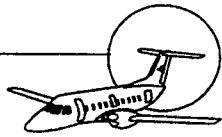
NP: 85%

BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 9000 FT

WEIGHT KG	IOAT (° C)										
	-50	-30	-20	-10	0	10	20	30	40	50	
12000	IAS KT 229	226	224	222	220	219	217	215	214	207	
	TORQUE % 65	65	65	65	65	65	65	65	65	61	
	F FLOW KG/H/ENG 248	251	253	255	257	259	260	262	264	254	
11500	IAS KT 230	227	225	223	221	219	218	216	215	210	
	TORQUE % 65	65	65	65	65	65	65	65	65	61	
	F FLOW KG/H/ENG 248	251	253	255	257	259	260	262	264	255	
11000	IAS KT 231	227	225	224	222	220	219	217	216	211	
	TORQUE % 65	65	65	65	65	65	65	65	65	61	
	F FLOW KG/H/ENG 248	251	253	255	257	259	260	262	264	256	
10500	IAS KT 231	228	226	224	223	221	219	218	216	212	
	TORQUE % 65	65	65	65	65	65	65	65	65	61	
	F FLOW KG/H/ENG 248	251	253	255	257	259	260	262	264	256	
10000	IAS KT 231	228	226	225	223	222	220	218	217	213	
	TORQUE % 65	65	65	65	65	65	65	65	65	61	
	F FLOW KG/H/ENG 248	251	253	255	257	259	260	262	264	256	
9500	IAS KT 232	228	227	225	224	222	220	219	218	214	
	TORQUE % 65	65	65	65	65	65	65	65	65	62	
	F FLOW KG/H/ENG 248	251	253	255	257	259	260	262	264	257	
9000	IAS KT 232	229	227	226	224	222	221	219	218	214	
	TORQUE % 65	65	65	65	65	65	65	65	65	62	
	F FLOW KG/H/ENG 248	251	253	255	257	259	260	262	264	257	
8500	IAS KT 232	229	227	226	224	223	221	220	218	215	
	TORQUE % 65	65	65	65	65	65	65	65	65	62	
	F FLOW KG/H/ENG 248	251	253	255	257	259	260	262	264	257	
8000	IAS KT 232	229	228	226	224	223	221	220	219	216	
	TORQUE % 65	65	65	65	65	65	65	65	65	62	
	F FLOW KG/H/ENG 248	251	253	255	257	259	260	262	264	257	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 10000 FT

WEIGHT KG	IOAT (° C)											
	-50	-40	-30	-20	-10	0	10	20	30	40		
12000	IAS	KT	228	226	224	222	221	219	217	215	213	212
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	245	247	248	250	252	253	255	256	258	259
11500	IAS	KT	229	227	225	223	222	220	218	216	215	213
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	245	247	248	250	252	253	255	256	258	259
11000	IAS	KT	229	227	226	224	222	220	219	217	216	214
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	245	247	248	250	252	253	255	256	258	259
10500	IAS	KT	230	228	226	225	223	221	219	218	216	215
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	245	247	248	250	252	253	255	256	258	259
10000	IAS	KT	230	228	227	225	223	222	220	218	217	216
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	245	247	248	250	252	253	255	256	258	259
9500	IAS	KT	230	229	227	225	224	222	221	219	218	216
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	245	247	248	250	252	253	255	256	258	259
9000	IAS	KT	231	229	227	226	224	223	221	219	218	217
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	245	247	248	250	252	253	255	256	258	259
8500	IAS	KT	231	229	228	226	224	223	221	220	218	217
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	245	247	248	250	252	253	255	256	258	259
8000	IAS	KT	231	229	228	226	225	223	222	220	219	217
	TORQUE	%	65	65	65	65	65	65	65	65	65	65
	F FLOW	KG/H/ENG	245	247	248	250	252	253	255	256	258	259

17 MARCH 1999



EMBRAER
EMB 120 Brasilia
**SUPPLEMENTARY PERFORMANCE
MANUAL**

CRUISE CONTROL

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

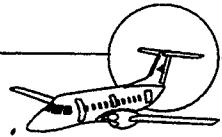
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 11000 FT

WEIGHT KG	IOAT (° C)											
	-50	-40	-30	-20	-10	0	10	20	30	40		
12000	IAS	KT	237	235	233	232	230	228	227	226	219	207
	TORQUE	%	73	73	73	73	74	74	74	75	70	63
	F FLOW	KG/H/ENG	263	265	267	269	272	274	276	279	269	251
11500	IAS	KT	236	235	233	232	230	228	227	226	219	208
	TORQUE	%	72	72	73	73	73	73	74	74	70	62
	F FLOW	KG/H/ENG	260	264	265	268	270	272	274	277	267	250
11000	IAS	KT	236	234	233	231	230	228	227	226	219	208
	TORQUE	%	71	72	72	72	72	73	73	74	69	62
	F FLOW	KG/H/ENG	258	261	264	266	268	270	272	275	265	248
10500	IAS	KT	235	234	233	231	230	228	227	226	219	208
	TORQUE	%	71	71	71	72	72	72	72	73	69	61
	F FLOW	KG/H/ENG	257	259	262	264	266	269	271	274	264	246
10000	IAS	KT	235	234	232	231	230	228	226	225	219	208
	TORQUE	%	70	70	71	71	71	72	72	72	68	61
	F FLOW	KG/H/ENG	255	258	260	263	265	267	269	272	262	245
9500	IAS	KT	235	233	232	231	229	228	226	225	219	209
	TORQUE	%	70	70	70	71	71	71	71	72	67	60
	F FLOW	KG/H/ENG	254	256	259	261	263	266	268	270	260	244
9000	IAS	KT	235	233	232	230	229	227	226	225	219	209
	TORQUE	%	69	70	70	70	70	71	71	71	67	60
	F FLOW	KG/H/ENG	253	255	257	260	262	264	266	268	259	242
8500	IAS	KT	235	233	231	230	229	227	226	225	218	209
	TORQUE	%	69	69	69	70	70	70	70	71	66	59
	F FLOW	KG/H/ENG	253	254	256	258	261	263	265	267	258	241
8000	IAS	KT	234	233	231	230	228	227	226	224	218	208
	TORQUE	%	69	69	69	69	69	70	70	70	66	59
	F FLOW	KG/H/ENG	252	253	255	257	259	262	263	266	256	239

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**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE
CRUISE CONFIGURATION

NP: 85%

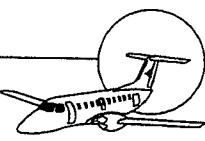
BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 12000 FT

WEIGHT KG	IAS	KT	235	233	232	230	228	227	225	223	214	202	IOAT	(° C)								
													-50	-40	-30	-20	-10	0	10	20	30	40
12000	TORQUE	%	73	73	73	73	74	74	74	74	74	68	61									
	F FLOW	KG/H/ENG	260	262	264	267	269	271	273	273	274	259	242									
	IAS	KT	235	233	231	230	228	227	225	223	223	214	203									
11500	TORQUE	%	72	72	72	73	73	73	73	74	74	67	60									
	F FLOW	KG/H/ENG	258	260	262	265	267	269	271	272	272	257	240									
	IAS	KT	234	233	231	230	228	227	225	223	223	214	203									
11000	TORQUE	%	71	72	72	72	72	72	73	73	73	66	59									
	F FLOW	KG/H/ENG	256	259	261	263	265	267	269	270	270	255	239									
	IAS	KT	234	233	231	230	228	227	225	223	223	214	204									
10500	TORQUE	%	70	71	71	72	72	72	72	72	72	66	59									
	F FLOW	KG/H/ENG	254	257	259	261	263	265	267	268	268	254	237									
	IAS	KT	234	232	231	230	229	228	226	225	223	214	204									
10000	TORQUE	%	70	70	71	71	71	71	72	72	72	65	58									
	F FLOW	KG/H/ENG	252	255	258	260	262	264	265	266	266	252	235									
	IAS	KT	233	232	231	229	228	226	225	223	223	214	204									
9500	TORQUE	%	70	70	70	70	70	71	71	71	71	65	58									
	F FLOW	KG/H/ENG	251	253	256	258	260	262	264	266	266	251	234									
	IAS	KT	233	232	230	229	227	226	224	222	222	214	204									
9000	TORQUE	%	69	69	70	70	70	70	70	71	71	64	57									
	F FLOW	KG/H/ENG	250	252	254	257	259	261	262	263	263	249	233									
	IAS	KT	233	231	230	228	227	226	224	222	222	214	204									
8500	TORQUE	%	69	69	69	69	69	70	70	70	70	64	57									
	F FLOW	KG/H/ENG	249	251	253	255	257	259	261	261	261	247	231									
	IAS	KT	233	231	229	228	227	225	224	222	222	214	204									
8000	TORQUE	%	69	69	69	69	69	69	70	70	70	63	56									
	F FLOW	KG/H/ENG	248	250	251	254	256	258	260	260	260	246	230									

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

CRUISE CONTROL

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

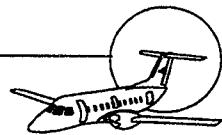
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 13000 FT

WEIGHT KG			IOAT (° C)									
			-50	-40	-30	-20	-10	0	10	20	30	40
12000	IAS	KT	233	232	230	229	227	225	224	219	209	199
	TORQUE	%	72	73	73	73	74	74	75	72	65	59
	F FLOW	KG/H/ENG	257	260	262	264	266	268	271	266	249	233
11500	IAS	KT	233	232	230	228	227	225	224	219	209	199
	TORQUE	%	72	72	72	73	73	73	74	72	65	58
	F FLOW	KG/H/ENG	256	258	260	262	264	266	269	264	248	232
11000	IAS	KT	233	231	230	228	226	225	224	219	209	199
	TORQUE	%	71	72	72	72	72	73	73	71	64	57
	F FLOW	KG/H/ENG	254	256	258	260	262	264	267	263	246	230
10500	IAS	KT	232	231	230	228	226	225	224	219	210	199
	TORQUE	%	70	71	71	71	72	72	73	70	64	57
	F FLOW	KG/H/ENG	252	255	256	258	260	262	265	261	244	228
10000	IAS	KT	232	231	229	228	226	225	223	219	210	199
	TORQUE	%	70	70	71	71	71	71	72	70	63	56
	F FLOW	KG/H/ENG	250	252	255	256	259	260	263	259	242	227
9500	IAS	KT	232	230	229	228	226	224	223	219	210	199
	TORQUE	%	69	70	70	70	71	71	71	69	62	56
	F FLOW	KG/H/ENG	248	250	253	255	257	259	261	257	241	225
9000	IAS	KT	232	230	229	227	226	224	223	219	210	200
	TORQUE	%	69	69	70	70	70	70	71	69	62	55
	F FLOW	KG/H/ENG	247	249	251	253	255	257	260	256	239	224
8500	IAS	KT	231	230	228	227	225	224	223	219	210	200
	TORQUE	%	69	69	69	69	70	70	70	68	61	55
	F FLOW	KG/H/ENG	246	247	250	252	254	256	258	254	238	222
8000	IAS	KT	231	229	228	227	225	224	222	219	209	200
	TORQUE	%	68	68	68	69	69	69	70	67	61	54
	F FLOW	KG/H/ENG	245	246	248	250	252	254	257	252	236	221

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**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE
CRUISE CONFIGURATION

NP: 85%

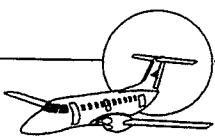
BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 14000 FT

WEIGHT KG	IOAT (° C)											
	-50	-40	-30	-20	-10	0	10	20	30	40		
12000	IAS	KT	232	230	228	227	225	223	222	214	204	191
	TORQUE	%	73	73	73	74	74	74	74	70	63	56
	F FLOW	KG/H/ENG	255	258	260	262	264	265	268	257	241	222
11500	IAS	KT	232	230	228	227	225	223	222	215	204	195
	TORQUE	%	72	72	72	73	73	73	74	69	63	56
	F FLOW	KG/H/ENG	253	256	257	259	261	263	266	255	239	223
11000	IAS	KT	232	230	228	227	225	223	222	215	205	195
	TORQUE	%	71	71	72	72	72	73	73	68	62	55
	F FLOW	KG/H/ENG	252	253	255	257	259	261	264	253	237	221
10500	IAS	KT	231	230	228	226	225	223	222	215	205	195
	TORQUE	%	71	71	71	71	72	72	72	68	61	55
	F FLOW	KG/H/ENG	250	252	253	256	257	259	262	251	235	220
10000	IAS	KT	231	229	228	226	225	223	222	215	205	195
	TORQUE	%	70	70	71	71	71	71	72	67	61	54
	F FLOW	KG/H/ENG	247	250	252	254	255	257	260	249	233	218
9500	IAS	KT	230	229	228	226	224	223	221	215	205	195
	TORQUE	%	69	70	70	70	71	71	71	67	60	54
	F FLOW	KG/H/ENG	245	248	250	252	254	256	258	248	232	217
9000	IAS	KT	230	228	227	226	224	222	221	215	205	195
	TORQUE	%	69	69	69	70	70	70	70	66	60	53
	F FLOW	KG/H/ENG	244	246	248	250	252	254	256	246	230	215
8500	IAS	KT	230	228	227	225	224	222	221	214	205	195
	TORQUE	%	68	69	69	69	69	70	70	65	59	53
	F FLOW	KG/H/ENG	243	245	247	249	251	252	255	244	229	214
8000	IAS	KT	229	228	226	225	223	222	221	214	205	196
	TORQUE	%	68	68	68	69	69	69	69	65	59	52
	F FLOW	KG/H/ENG	242	243	245	247	249	251	253	243	227	213

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EMB120 Brasilia
SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL

CRUISE CONTROL
ALL ENGINES OPERATING
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

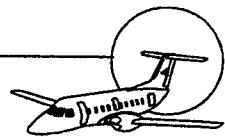
BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 15000 FT

WEIGHT KG	IOAT (° C)											
	-50	-40	-30	-20	-10	-5	0	10	20	30		
12000	IAS	KT	230	229	227	225	223	222	222	219	209	198
	TORQUE	%	73	73	73	74	74	74	74	73	67	61
	F FLOW	KG/H/ENG	253	255	258	259	261	262	264	263	247	231
11500	IAS	KT	230	228	227	225	223	222	222	219	210	199
	TORQUE	%	72	72	72	73	73	73	73	73	67	60
	F FLOW	KG/H/ENG	251	253	255	257	259	260	262	261	245	230
11000	IAS	KT	230	228	227	225	223	222	222	219	210	200
	TORQUE	%	71	71	72	72	72	72	72	72	66	60
	F FLOW	KG/H/ENG	249	251	253	255	257	258	259	258	244	228
10500	IAS	KT	230	228	226	225	223	222	222	219	210	200
	TORQUE	%	71	71	71	71	72	72	72	71	65	59
	F FLOW	KG/H/ENG	248	249	251	253	255	256	257	256	242	227
10000	IAS	KT	229	228	226	225	223	222	221	219	210	200
	TORQUE	%	70	70	71	71	71	71	71	71	65	58
	F FLOW	KG/H/ENG	245	248	249	251	253	254	255	254	240	225
9500	IAS	KT	229	228	226	224	223	222	221	219	210	201
	TORQUE	%	69	70	70	70	70	70	71	70	64	58
	F FLOW	KG/H/ENG	243	246	248	249	251	252	253	253	238	223
9000	IAS	KT	228	227	226	224	222	222	221	218	210	201
	TORQUE	%	69	69	69	70	70	70	70	69	64	57
	F FLOW	KG/H/ENG	242	244	246	247	249	250	252	251	236	221
8500	IAS	KT	228	227	225	224	222	221	221	218	210	201
	TORQUE	%	68	68	69	69	69	69	70	69	63	57
	F FLOW	KG/H/ENG	240	242	244	246	248	249	250	249	235	220
8000	IAS	KT	228	226	225	223	222	221	220	218	210	201
	TORQUE	%	68	68	68	69	69	69	69	68	62	56
	F FLOW	KG/H/ENG	239	240	242	244	246	247	249	247	233	218

17 MARCH 1999


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

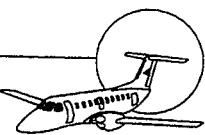
BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 16000 FT

WEIGHT KG	IOAT (° C)											
	-50	-40	-30	-20	-10	-5	0	10	20	30		
12000	IAS KT 229	227	225	223	221	221	220	214	204	194		
	TORQUE % 73	73	73	74	74	74	75	71	65	59		
	F FLOW KG/H/ENG 252	253	255	257	259	261	262	254	238	223		
11500	IAS KT 228	227	225	223	221	221	220	215	205	194		
	TORQUE % 72	72	72	73	73	73	73	74	71	64	58	
	F FLOW KG/H/ENG 249	251	253	255	257	258	260	252	236	222		
11000	IAS KT 228	227	225	223	221	221	220	215	205	195		
	TORQUE % 71	71	72	72	72	72	73	73	70	64	58	
	F FLOW KG/H/ENG 247	249	251	253	254	256	257	250	235	220		
10500	IAS KT 228	226	225	223	221	221	220	215	205	196		
	TORQUE % 71	71	71	71	72	72	72	69	63	57		
	F FLOW KG/H/ENG 245	247	249	251	252	254	255	248	233	218		
10000	IAS KT 228	226	225	223	221	221	220	215	206	196		
	TORQUE % 70	70	70	70	71	71	71	72	68	62	56	
	F FLOW KG/H/ENG 244	245	247	249	250	252	253	246	231	216		
9500	IAS KT 228	226	224	223	221	220	220	215	206	196		
	TORQUE % 69	69	70	70	70	70	71	71	68	62	56	
	F FLOW KG/H/ENG 242	244	245	247	248	250	251	244	229	214		
9000	IAS KT 227	226	224	223	221	220	220	215	206	196		
	TORQUE % 69	69	69	69	70	70	70	70	67	61	55	
	F FLOW KG/H/ENG 239	242	243	245	247	248	249	242	227	213		
8500	IAS KT 227	225	224	222	221	220	219	214	206	196		
	TORQUE % 68	68	68	69	69	69	70	67	61	55		
	F FLOW KG/H/ENG 237	239	242	243	245	246	248	240	226	211		
8000	IAS KT 226	225	223	222	220	220	219	214	206	197		
	TORQUE % 68	68	68	68	69	69	69	66	60	54		
	F FLOW KG/H/ENG 236	237	240	242	244	244	246	238	224	210		

17 MARCH 1999



EMBRAER
EMB120 Brasilia
**SUPPLEMENTARY PERFORMANCE
MANUAL**

CRUISE CONTROL

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

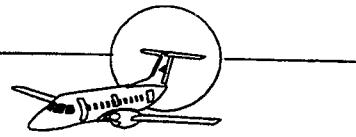
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 17000 FT

WEIGHT KG	IAS	KT	IOAT (° C)									
			-50	-40	-30	-20	-10	-5	0	10	20	30
12000	TORQUE %	227	225	223	222	220	219	218	209	199	186	
	F FLOW KG/H/ENG	73	73	73	74	74	75	74	69	63	56	
	IAS	250	252	254	256	258	260	259	245	230	213	
11500	TORQUE %	227	225	223	222	220	219	218	210	200	189	
	F FLOW KG/H/ENG	72	72	73	73	73	74	73	68	62	56	
	IAS	248	250	251	253	255	257	256	243	228	213	
11000	TORQUE %	227	225	223	222	220	219	218	210	200	190	
	F FLOW KG/H/ENG	71	72	72	72	72	73	72	67	61	55	
	IAS	246	247	249	251	253	255	254	241	226	212	
10500	TORQUE %	227	225	223	222	220	219	218	210	201	190	
	F FLOW KG/H/ENG	71	71	71	72	72	72	72	67	61	55	
	IAS	243	245	247	249	251	252	252	238	224	210	
10000	TORQUE %	226	225	223	221	220	219	218	210	201	191	
	F FLOW KG/H/ENG	70	70	70	71	71	72	71	66	60	54	
	IAS	241	243	245	246	249	250	249	236	222	208	
9500	TORQUE %	226	224	223	221	219	219	218	210	201	192	
	F FLOW KG/H/ENG	70	70	70	70	70	71	70	65	59	54	
	IAS	240	241	243	244	246	248	248	234	220	206	
9000	TORQUE %	226	224	222	221	219	219	217	210	201	192	
	F FLOW KG/H/ENG	69	69	69	69	70	70	70	65	59	53	
	IAS	237	240	241	243	244	246	246	233	218	205	
8500	TORQUE %	225	224	222	221	219	218	217	210	201	192	
	F FLOW KG/H/ENG	68	68	69	69	69	70	69	64	58	52	
	IAS	235	238	239	241	243	244	244	231	217	203	
8000	TORQUE %	225	223	222	220	219	218	217	210	201	192	
	F FLOW KG/H/ENG	67	68	68	68	69	69	69	63	58	52	
	IAS	234	235	237	239	241	243	242	229	215	202	

17 MARCH 1999


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE
CRUISE CONFIGURATION

NP: 85%

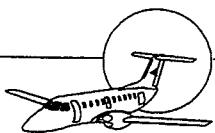
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 18000 FT

WEIGHT KG	IOAT (° C)											
	-50	-40	-30	-20	-10	-5	0	10	20	30		
12000	IAS	KT	225	223	222	220	219	217	214	204	194	176
	TORQUE	%	73	73	73	74	74	74	72	66	60	52
	F FLOW	KG/H/ENG	248	250	252	254	257	257	252	236	220	200
11500	IAS	KT	225	223	222	220	219	217	214	205	195	181
	TORQUE	%	72	72	73	73	74	73	72	66	60	53
	F FLOW	KG/H/ENG	246	248	250	252	255	254	250	234	220	202
11000	IAS	KT	225	223	222	220	219	217	214	205	195	186
	TORQUE	%	71	72	72	72	73	73	71	65	59	53
	F FLOW	KG/H/ENG	244	246	247	249	252	252	248	232	218	203
10500	IAS	KT	225	223	222	220	218	217	214	206	196	185
	TORQUE	%	71	71	71	71	72	72	70	64	59	53
	F FLOW	KG/H/ENG	242	243	245	247	249	249	245	230	216	202
10000	IAS	KT	225	223	221	220	218	217	214	206	197	186
	TORQUE	%	70	70	71	71	71	71	69	64	58	52
	F FLOW	KG/H/ENG	240	241	243	245	247	247	243	228	214	200
9500	IAS	KT	225	223	221	219	218	217	214	206	197	187
	TORQUE	%	69	70	70	70	71	70	69	63	57	52
	F FLOW	KG/H/ENG	238	240	241	243	245	245	241	226	212	199
9000	IAS	KT	224	222	221	219	218	217	214	206	197	187
	TORQUE	%	69	69	69	69	70	70	68	62	57	51
	F FLOW	KG/H/ENG	236	237	239	241	243	243	239	224	210	197
8500	IAS	KT	224	222	220	219	218	216	214	206	197	188
	TORQUE	%	68	68	69	69	69	69	67	62	56	50
	F FLOW	KG/H/ENG	233	236	237	239	241	241	237	222	209	195
8000	IAS	KT	223	222	220	219	217	216	213	205	197	188
	TORQUE	%	67	68	68	68	69	69	67	61	55	50
	F FLOW	KG/H/ENG	231	233	235	237	239	239	235	220	207	193

17 MARCH 1999



EMBRAER

EMB120 Brasilia

SUPPLEMENTARY PERFORMANCE MANUAL

CRUISE CONTROL

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

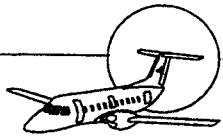
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 19000 FT

WEIGHT KG	IOAT (° C)											
	-50	-40	-30	-20	-10	-5	0	10	20	30		
12000	IAS	KT	224	222	220	218	217	214	209	199	188	-
	TORQUE	%	73	73	74	74	74	73	70	64	58	-
	F FLOW	KG/H/ENG	247	249	251	253	255	251	243	228	211	-
11500	IAS	KT	224	222	220	218	217	214	209	200	189	171
	TORQUE	%	72	72	73	73	73	72	69	63	57	50
	F FLOW	KG/H/ENG	245	247	249	250	252	248	241	226	210	191
11000	IAS	KT	223	222	220	218	217	214	210	200	190	177
	TORQUE	%	71	72	72	72	73	71	69	63	57	50
	F FLOW	KG/H/ENG	243	244	246	248	250	246	239	224	210	192
10500	IAS	KT	223	221	220	218	217	214	210	201	191	181
	TORQUE	%	70	71	71	72	72	71	68	62	56	51
	F FLOW	KG/H/ENG	240	242	244	245	247	244	237	222	208	193
10000	IAS	KT	223	221	220	218	216	214	210	201	192	181
	TORQUE	%	70	70	71	71	71	70	67	61	56	50
	F FLOW	KG/H/ENG	238	240	241	243	245	241	235	220	206	192
9500	IAS	KT	223	221	219	218	216	214	210	201	192	182
	TORQUE	%	69	70	70	70	70	69	66	61	55	50
	F FLOW	KG/H/ENG	236	238	239	241	243	239	232	218	204	191
9000	IAS	KT	222	221	219	218	216	214	210	201	192	183
	TORQUE	%	69	69	69	69	70	68	66	60	55	49
	F FLOW	KG/H/ENG	234	235	237	239	240	237	230	216	202	189
8500	IAS	KT	222	221	219	217	216	213	210	201	192	183
	TORQUE	%	68	68	69	69	69	68	65	59	54	49
	F FLOW	KG/H/ENG	232	234	235	236	238	235	228	214	200	187
8000	IAS	KT	221	220	219	217	215	213	209	201	193	183
	TORQUE	%	67	68	68	68	68	67	64	59	53	48
	F FLOW	KG/H/ENG	229	232	234	235	236	233	226	212	199	186

17 MARCH 1999


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 20000 FT

	WEIGHT		IOAT (° C)									
		KG	-50	-40	-30	-20	-15	-10	-5	0	10	20
12000	IAS	KT	222	220	218	217	216	213	209	204	194	178
	TORQUE	%	73	74	74	74	74	73	70	68	62	54
	F FLOW	KG/H/ENG	246	249	250	253	253	249	242	235	220	200
11500	IAS	KT	222	220	218	217	216	213	209	204	195	183
	TORQUE	%	72	73	73	74	74	72	70	67	61	55
	F FLOW	KG/H/ENG	243	246	248	250	250	247	240	233	218	201
11000	IAS	KT	222	220	218	217	216	213	209	205	195	185
	TORQUE	%	72	72	72	73	73	71	69	66	61	55
	F FLOW	KG/H/ENG	242	244	248	248	248	245	238	230	216	200
10500	IAS	KT	221	220	218	217	216	214	210	205	196	186
	TORQUE	%	71	71	71	72	72	71	68	66	60	55
	F FLOW	KG/H/ENG	239	241	242	245	245	242	235	228	213	200
10000	IAS	KT	222	220	218	217	216	213	210	205	196	186
	TORQUE	%	70	71	70	71	71	70	67	65	59	54
	F FLOW	KG/H/ENG	237	240	240	242	243	240	233	226	211	198
9500	IAS	KT	221	220	218	217	216	213	209	205	197	187
	TORQUE	%	69	70	70	70	70	69	67	64	59	53
	F FLOW	KG/H/ENG	234	237	238	240	240	238	230	224	209	196
9000	IAS	KT	221	219	218	216	215	213	209	205	197	188
	TORQUE	%	69	69	69	70	70	69	66	63	58	53
	F FLOW	KG/H/ENG	232	234	235	238	238	235	229	222	207	195
8500	IAS	KT	220	219	217	216	215	213	209	205	197	188
	TORQUE	%	68	68	68	69	69	68	65	63	57	52
	F FLOW	KG/H/ENG	230	232	233	236	236	233	227	220	205	193
8000	IAS	KT	220	219	217	216	215	213	209	205	197	188
	TORQUE	%	67	68	68	68	68	67	65	62	57	51
	F FLOW	KG/H/ENG	228	230	231	233	234	231	225	217	203	191

17 MARCH 1999

SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 21000 FT

WEIGHT KG	IAS KT	TORQUE %	F FLOW KG/H/ENG	IOAT (° C)									
				-50	-40	-30	-20	-15	-10	-5	0	10	20
12000	IAS KT	220	219	217	215	212	208	203	199	189	-		
	TORQUE %	73	74	74	75	73	71	68	65	60	-		
	F FLOW KG/H/ENG	245	248	250	252	248	241	234	227	211	-		
11500	IAS KT	219	218	217	215	213	209	204	199	188	174		
	TORQUE %	72	73	73	74	72	70	67	65	59	52		
	F FLOW KG/H/ENG	241	245	247	249	246	239	232	224	210	190		
11000	IAS KT	219	218	218	215	213	209	205	200	190	178		
	TORQUE %	70	72	73	73	72	69	67	64	59	52		
	F FLOW KG/H/ENG	237	242	246	246	243	236	230	222	208	192		
10500	IAS KT	218	218	217	215	213	209	205	200	191	181		
	TORQUE %	69	71	72	72	71	69	66	63	58	53		
	F FLOW KG/H/ENG	234	240	242	244	241	234	227	220	206	192		
10000	IAS KT	218	218	216	215	213	209	205	201	192	182		
	TORQUE %	68	70	71	71	70	68	65	63	57	52		
	F FLOW KG/H/ENG	231	237	239	241	238	232	225	218	204	191		
9500	IAS KT	217	218	217	215	213	209	205	201	192	182		
	TORQUE %	67	69	70	71	69	67	64	62	56	51		
	F FLOW KG/H/ENG	228	234	238	238	236	229	223	216	202	189		
9000	IAS KT	217	217	216	215	213	209	205	201	192	183		
	TORQUE %	66	68	69	70	69	66	64	61	56	51		
	F FLOW KG/H/ENG	225	231	235	236	234	227	220	213	200	187		
8500	IAS KT	216	217	216	214	212	209	205	201	192	184		
	TORQUE %	66	68	69	69	68	66	63	60	55	50		
	F FLOW KG/H/ENG	222	228	232	234	231	225	218	211	198	185		
8000	IAS KT	216	216	216	214	212	209	205	201	192	184		
	TORQUE %	65	67	69	69	67	65	62	60	54	49		
	F FLOW KG/H/ENG	220	226	232	233	228	223	216	210	196	183		


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE
CRUISE CONFIGURATION

NP: 85%

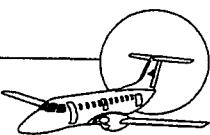
BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 22000 FT

WEIGHT KG	IOAT (° C)											
	-50	-40	-30	-20	-15	-10	-5	0	10	20		
12000	IAS	KT	216	216	215	212	208	203	198	193	179	-
	TORQUE	%	71	74	75	73	71	68	66	63	56	-
	F FLOW	KG/H/ENG	239	247	250	246	240	233	226	219	200	-
11500	IAS	KT	215	216	216	212	208	204	199	194	185	-
	TORQUE	%	70	72	74	73	70	68	65	63	57	-
	F FLOW	KG/H/ENG	235	242	248	245	238	230	223	217	201	-
11000	IAS	KT	215	215	215	212	209	204	200	195	184	169
	TORQUE	%	69	71	73	72	70	67	64	62	56	49
	F FLOW	KG/H/ENG	231	238	244	241	236	228	221	214	201	181
10500	IAS	KT	214	215	215	212	209	204	200	195	186	174
	TORQUE	%	67	69	71	71	69	66	64	61	56	50
	F FLOW	KG/H/ENG	227	234	240	239	233	226	219	212	198	183
10000	IAS	KT	214	214	214	213	209	205	200	196	187	178
	TORQUE	%	66	68	70	70	68	65	63	60	55	50
	F FLOW	KG/H/ENG	224	230	236	237	231	224	216	210	196	183
9500	IAS	KT	213	214	214	212	209	205	201	196	187	178
	TORQUE	%	65	67	69	69	67	65	62	60	54	49
	F FLOW	KG/H/ENG	220	227	233	234	228	221	214	208	194	182
9000	IAS	KT	213	213	213	212	209	205	201	197	188	178
	TORQUE	%	64	66	68	69	67	64	61	59	54	49
	F FLOW	KG/H/ENG	217	224	229	233	226	219	212	206	192	180
8500	IAS	KT	212	213	213	212	208	205	201	197	188	179
	TORQUE	%	64	65	67	68	66	63	61	58	53	48
	F FLOW	KG/H/ENG	215	221	226	230	224	217	210	203	190	178
8000	IAS	KT	212	212	212	211	208	204	200	197	188	179
	TORQUE	%	63	65	66	67	65	63	60	58	52	48
	F FLOW	KG/H/ENG	212	218	224	227	222	215	208	201	188	176

17 MARCH 1999



EMBRAER
EMB120 Brasilia
**SUPPLEMENTARY PERFORMANCE
MANUAL**

CRUISE CONTROL

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

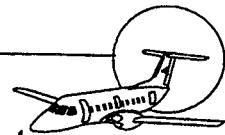
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 23000 FT

WEIGHT KG	IOAT (° C)											
	-50	-40	-30	-20	-15	-10	-5	0	10	20		
12000	IAS	KT	212	212	212	207	203	198	192	189	-	-
	TORQUE	%	70	72	74	71	69	66	64	61	-	-
	F FLOW	KG/H/ENG	233	241	247	239	232	225	218	210	-	-
11500	IAS	KT	212	212	212	207	203	199	194	188	174	-
	TORQUE	%	68	71	73	70	68	65	63	60	53	-
	F FLOW	KG/H/ENG	229	236	242	236	229	223	215	209	190	-
11000	IAS	KT	211	211	211	208	204	199	195	190	180	-
	TORQUE	%	67	69	71	70	67	65	62	60	54	-
	F FLOW	KG/H/ENG	225	232	238	234	227	220	213	206	192	-
10500	IAS	KT	210	211	211	208	204	200	195	191	180	164
	TORQUE	%	66	68	70	69	66	64	61	59	54	47
	F FLOW	KG/H/ENG	221	228	234	232	225	218	211	204	191	173
10000	IAS	KT	210	210	210	208	204	200	196	191	181	171
	TORQUE	%	65	67	68	68	66	63	61	58	53	47
	F FLOW	KG/H/ENG	217	223	229	229	222	216	209	202	189	174
9500	IAS	KT	209	210	210	208	204	200	196	192	182	173
	TORQUE	%	64	65	67	67	65	63	60	58	52	48
	F FLOW	KG/H/ENG	214	220	225	227	220	213	207	200	187	174
9000	IAS	KT	209	209	209	208	204	200	196	192	183	173
	TORQUE	%	63	64	66	67	64	62	59	57	52	47
	F FLOW	KG/H/ENG	210	217	222	225	217	211	204	198	185	173
8500	IAS	KT	208	209	209	208	204	200	196	192	183	174
	TORQUE	%	62	63	65	66	63	61	59	56	51	46
	F FLOW	KG/H/ENG	208	214	219	222	215	209	202	196	183	171
8000	IAS	KT	208	208	208	207	204	200	196	192	184	175
	TORQUE	%	61	63	64	65	63	60	58	55	50	46
	F FLOW	KG/H/ENG	205	211	216	219	214	206	200	193	181	170


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 24000 FT

	WEIGHT KG	IAS	KT	208	209	209	202	197	191	186	181	-	-	IOAT (° C)			
														-50	-40	-30	-20
12000	TORQUE %	208	209	209	202	197	191	186	181	-	-						
	F FLOW KG/H/ENG	68	71	73	69	66	64	61	58	-	-						
	IAS	228	236	243	231	224	217	210	200	-	-						
11500	TORQUE %	207	208	208	202	198	193	188	184	-	-						
	F FLOW KG/H/ENG	67	69	72	68	66	63	61	58	-	-						
	IAS	223	231	237	228	221	215	208	201	-	-						
11000	TORQUE %	207	207	207	203	199	194	189	183	169	-						
	F FLOW KG/H/ENG	66	68	70	67	65	62	60	58	51	-						
	IAS	219	226	232	226	219	212	206	199	180	-						
10500	TORQUE %	207	207	207	203	199	195	190	185	176	-						
	F FLOW KG/H/ENG	64	66	68	66	64	62	59	57	51	-						
	IAS	215	222	227	223	217	210	203	197	182	-						
10000	TORQUE %	206	206	206	203	200	195	191	186	176	161	-					
	F FLOW KG/H/ENG	63	65	67	66	63	61	59	56	51	44	-					
	IAS	211	217	223	221	214	207	201	195	182	164	-					
9500	TORQUE %	206	206	206	203	200	196	191	187	177	167	-					
	F FLOW KG/H/ENG	62	64	65	65	63	60	58	55	50	45	-					
	IAS	208	213	219	218	213	205	199	192	180	166	-					
9000	TORQUE %	205	205	205	204	200	196	192	187	178	170	-					
	F FLOW KG/H/ENG	61	63	64	64	62	60	57	55	50	45	-					
	IAS	204	210	215	217	210	203	197	190	178	167	-					
8500	TORQUE %	205	205	205	204	200	196	192	188	179	170	-					
	F FLOW KG/H/ENG	60	62	63	64	61	59	56	54	49	44	-					
	IAS	201	207	212	215	207	201	194	188	176	164	-					
8000	TORQUE %	204	204	204	203	200	196	192	188	179	170	-					
	F FLOW KG/H/ENG	59	61	62	63	60	58	56	53	48	44	-					
	IAS	198	204	208	211	205	198	192	186	174	163	-					

17 MARCH 1999



**SUPPLEMENTARY PERFORMANCE
MANUAL**

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

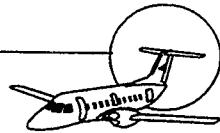
NP: 85%

BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 25000 FT

WEIGHT KG			IOAT (° C)									
			-50	-40	-30	-25	-20	-15	-10	-5	0	10
12000	IAS	KT	205	205	204	200	196	191	187	180	-	-
	TORQUE	%	67	70	71	68	67	64	62	59	-	-
	F FLOW	KG/H/ENG	224	232	235	229	223	216	209	200	-	-
11500	IAS	KT	203	204	205	201	197	192	187	184	175	-
	TORQUE	%	65	68	70	68	66	63	61	59	55	-
	F FLOW	KG/H/ENG	218	226	232	226	220	214	207	200	190	-
11000	IAS	KT	203	204	204	201	198	193	188	183	180	-
	TORQUE	%	64	67	69	67	65	63	60	58	56	-
	F FLOW	KG/H/ENG	214	221	227	223	218	211	205	198	190	-
10500	IAS	KT	203	203	203	202	198	194	190	185	180	165
	TORQUE	%	63	65	66	66	64	62	60	57	55	48
	F FLOW	KG/H/ENG	210	216	222	222	215	209	203	196	190	171
10000	IAS	KT	202	203	203	203	199	195	190	186	181	171
	TORQUE	%	61	63	65	66	63	61	59	56	54	49
	F FLOW	KG/H/ENG	206	212	217	220	213	207	200	194	187	173
9500	IAS	KT	202	202	202	202	199	195	191	186	182	173
	TORQUE	%	60	62	64	64	63	60	58	56	53	48
	F FLOW	KG/H/ENG	202	208	213	216	210	204	198	191	185	171
9000	IAS	KT	201	202	202	202	199	196	191	187	183	173
	TORQUE	%	59	61	62	63	62	60	57	55	53	48
	F FLOW	KG/H/ENG	198	204	209	212	208	203	196	189	183	171
8500	IAS	KT	201	201	201	201	199	195	191	187	183	174
	TORQUE	%	58	60	61	62	61	59	57	54	52	47
	F FLOW	KG/H/ENG	195	200	205	207	206	199	193	187	181	169
8000	IAS	KT	200	200	200	200	199	195	191	187	183	174
	TORQUE	%	57	59	60	61	60	58	56	54	51	47
	F FLOW	KG/H/ENG	192	197	202	204	203	197	191	185	179	167


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

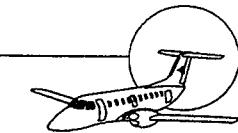
BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 26000 FT

WEIGHT KG				-50	-40	-30	-25	-20	-15	-10	-5	0	10	IOAT (° C)
12000	IAS	KT	202	201	199	195	190	184	179	-	-	-	-	
	TORQUE	%	67	69	68	66	64	62	59	-	-	-	-	
	F FLOW	KG/H/ENG	222	228	227	221	216	209	199	-	-	-	-	
11500	IAS	KT	201	201	200	196	191	186	183	174	-	-	-	
	TORQUE	%	65	67	68	65	64	61	59	55	-	-	-	
	F FLOW	KG/H/ENG	215	222	225	219	213	206	200	189	-	-	-	
11000	IAS	KT	199	200	200	197	193	187	182	179	170	-	-	
	TORQUE	%	63	65	67	65	63	61	58	56	52	-	-	
	F FLOW	KG/H/ENG	208	216	222	217	210	204	198	191	180	-	-	
10500	IAS	KT	199	199	199	197	193	189	184	179	175	-	-	
	TORQUE	%	61	63	65	64	62	60	58	55	53	-	-	
	F FLOW	KG/H/ENG	204	211	217	213	208	202	195	189	181	-	-	
10000	IAS	KT	199	199	199	197	194	190	185	180	175	161	-	
	TORQUE	%	60	62	63	63	61	59	57	54	52	46	-	
	F FLOW	KG/H/ENG	200	206	212	211	205	199	192	187	180	163	-	
9500	IAS	KT	198	198	198	198	194	190	186	181	177	167	-	
	TORQUE	%	59	61	62	62	60	58	56	54	51	46	-	
	F FLOW	KG/H/ENG	196	202	208	208	203	196	190	184	178	165	-	
9000	IAS	KT	197	198	198	198	195	191	186	182	177	168	-	
	TORQUE	%	57	59	61	62	60	58	55	53	51	46	-	
	F FLOW	KG/H/ENG	192	198	203	205	201	194	188	182	176	164	-	
8500	IAS	KT	197	197	197	197	195	191	187	183	178	169	-	
	TORQUE	%	56	58	59	60	59	57	55	52	50	45	-	
	F FLOW	KG/H/ENG	189	194	199	201	198	192	186	180	174	162	-	
8000	IAS	KT	196	197	197	197	195	191	187	183	179	169	-	
	TORQUE	%	55	57	57	59	58	56	54	52	49	45	-	
	F FLOW	KG/H/ENG	185	191	195	197	195	190	183	177	172	160	-	

17 MARCH 1999



EMBRAER
EMB120 Brasilia
**SUPPLEMENTARY PERFORMANCE
MANUAL**

CRUISE CONTROL

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

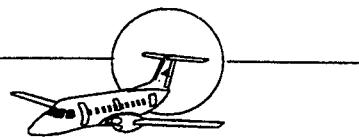
BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 27000 FT

WEIGHT KG	IOAT (° C)										
	-50	-40	-30	-25	-20	-15	-10	-5	0	10	
12000	IAS KT	198	200	193	188	186	178	-	-	-	
	TORQUE %	66	69	66	64	62	59	-	-	-	
	F FLOW KG/H/ENG	218	230	220	214	208	198	-	-	-	
11500	IAS KT	197	198	194	190	185	183	174	-	-	
	TORQUE %	64	66	65	63	61	59	56	-	-	
	F FLOW KG/H/ENG	212	220	217	211	206	199	189	-	-	
11000	IAS KT	196	196	195	191	187	182	179	170	-	
	TORQUE %	62	64	65	63	61	58	56	53	-	
	F FLOW KG/H/ENG	205	212	215	209	203	197	190	180	-	
10500	IAS KT	195	196	196	192	188	184	178	175	165	
	TORQUE %	60	62	64	62	60	58	55	53	49	
	F FLOW KG/H/ENG	199	206	211	206	201	194	188	181	171	
10000	IAS KT	195	195	195	193	189	185	180	176	171	
	TORQUE %	58	60	62	61	59	57	55	52	50	
	F FLOW KG/H/ENG	195	202	207	203	198	192	186	179	173	
9500	IAS KT	194	195	195	193	189	185	181	176	173	
	TORQUE %	57	59	61	60	58	56	54	52	50	
	F FLOW KG/H/ENG	191	197	202	201	195	189	183	177	171	
9000	IAS KT	194	194	194	193	190	186	181	177	172	
	TORQUE %	56	58	59	59	58	55	53	51	49	
	F FLOW KG/H/ENG	187	193	197	198	193	187	181	175	169	
8500	IAS KT	193	193	193	193	190	186	182	178	173	
	TORQUE %	55	56	58	58	57	55	53	50	48	
	F FLOW KG/H/ENG	183	188	193	195	191	184	179	173	167	
8000	IAS KT	193	193	193	193	190	186	182	178	174	
	TORQUE %	54	55	57	56	56	54	52	50	47	
	F FLOW KG/H/ENG	179	184	189	191	188	182	176	171	165	

17 MARCH 1999

SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 28000 FT

WEIGHT KG	IAS	KT	IOAT (° C)									
			-50	-40	-30	-25	-20	-15	-10	-5	0	10
12000	TORQUE	%	64	67	64	62	59	-	-	-	-	-
	F FLOW	KG/H/ENG	216	223	213	206	197	-	-	-	-	-
	IAS	KT	194	195	189	186	176	-	-	-	-	-
11500	TORQUE	%	63	66	63	61	59	56	-	-	-	-
	F FLOW	KG/H/ENG	209	220	210	204	197	188	-	-	-	-
	IAS	KT	193	195	189	186	182	173	-	-	-	-
11000	TORQUE	%	62	63	62	60	59	56	53	-	-	-
	F FLOW	KG/H/ENG	203	210	207	202	196	189	179	-	-	-
	IAS	KT	193	194	190	185	182	178	169	-	-	-
10500	TORQUE	%	59	61	61	60	58	56	53	50	-	-
	F FLOW	KG/H/ENG	195	203	204	199	194	187	180	171	-	-
	IAS	KT	191	192	191	187	183	178	174	165	-	-
10000	TORQUE	%	57	59	61	59	57	55	53	51	47	-
	F FLOW	KG/H/ENG	190	197	201	196	191	185	179	173	162	-
	IAS	KT	191	191	191	187	184	179	176	171	161	-
9500	TORQUE	%	56	58	59	58	56	54	52	50	47	-
	F FLOW	KG/H/ENG	186	192	197	194	188	182	176	170	164	-
	IAS	KT	190	191	191	188	184	180	176	173	167	-
9000	TORQUE	%	55	56	58	57	55	53	51	49	47	41
	F FLOW	KG/H/ENG	182	187	192	191	186	180	174	168	162	148
	IAS	KT	190	190	190	189	185	181	176	172	168	154
8500	TORQUE	%	53	55	56	56	55	53	50	48	46	42
	F FLOW	KG/H/ENG	177	183	187	189	184	178	171	166	160	149
	IAS	KT	189	190	190	189	186	181	178	174	169	161
8000	TORQUE	%	52	54	55	56	54	52	50	48	46	41
	F FLOW	KG/H/ENG	174	179	184	186	181	175	169	164	158	148

17 MARCH 1999



**SUPPLEMENTARY PERFORMANCE
MANUAL**

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

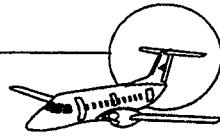
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 29000 FT

WEIGHT KG	IAS	KT	191	191	184	174	IOAT		(° C)		
							-50	-40	-30	-25	-20
12000	TORQUE	%	62	65	62	58	-	-	-	-	-
	F FLOW	KG/H/ENG	208	217	204	194	-	-	-	-	-
	IAS	KT	190	190	184	181	171	-	-	-	-
11500	TORQUE	%	61	63	61	59	56	-	-	-	-
	F FLOW	KG/H/ENG	204	207	203	196	186	-	-	-	-
	IAS	KT	189	191	184	179	177	167	-	-	-
11000	TORQUE	%	58	61	60	58	56	53	-	-	-
	F FLOW	KG/H/ENG	195	202	200	195	188	178	-	-	-
	IAS	KT	189	188	185	181	178	174	164	-	-
10500	TORQUE	%	57	60	59	58	56	54	50	-	-
	F FLOW	KG/H/ENG	193	199	197	192	187	179	170	-	-
	IAS	KT	187	188	186	182	178	174	170	160	-
10000	TORQUE	%	56	58	58	57	55	53	51	47	-
	F FLOW	KG/H/ENG	185	193	194	189	184	178	171	162	-
	IAS	KT	186	187	187	183	179	175	171	167	158
9500	TORQUE	%	54	56	58	56	54	52	50	48	44
	F FLOW	KG/H/ENG	181	187	192	186	181	175	170	163	154
	IAS	KT	186	186	186	184	180	176	171	167	163
9000	TORQUE	%	53	55	56	55	53	51	49	47	45
	F FLOW	KG/H/ENG	176	182	187	184	179	173	167	162	155
	IAS	KT	186	186	186	184	181	177	172	168	164
8500	TORQUE	%	52	53	55	54	53	51	49	46	44
	F FLOW	KG/H/ENG	173	178	182	181	176	171	165	159	154
	IAS	KT	185	185	185	184	181	177	173	170	164
8000	TORQUE	%	51	51	54	54	52	50	48	46	44
	F FLOW	KG/H/ENG	168	173	178	179	174	169	163	157	152
	IAS	KT	185	185	185	184	181	177	173	170	166


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 30000 FT

WEIGHT KG	IOAT (° C)										
	-50	-40	-35	-30	-25	-20	-15	-10	-5	0	
12000	IAS KT 187	184	181	170	-	-	-	-	-	-	
	TORQUE % 62	63	61	58	-	-	-	-	-	-	
	F FLOW KG/H/ENG 204	209	201	191	-	-	-	-	-	-	
11500	IAS KT 186	186	183	178	168	-	-	-	-	-	
	TORQUE % 59	62	61	59	55	-	-	-	-	-	
	F FLOW KG/H/ENG 197	207	201	194	184	-	-	-	-	-	
11000	IAS KT 185	186	184	181	176	165	-	-	-	-	
	TORQUE % 58	60	60	58	56	53	-	-	-	-	
	F FLOW KG/H/ENG 194	200	198	193	187	177	-	-	-	-	
10500	IAS KT 184	186	184	180	177	173	163	-	-	-	
	TORQUE % 56	60	59	57	56	54	50	-	-	-	
	F FLOW KG/H/ENG 190	200	195	190	185	179	169	-	-	-	
10000	IAS KT 184	184	185	181	177	172	170	160	-	-	
	TORQUE % 55	57	58	56	55	53	51	47	-	-	
	F FLOW KG/H/ENG 184	189	192	187	182	177	171	161	-	-	
9500	IAS KT 182	183	183	182	178	174	169	166	157	-	
	TORQUE % 53	55	56	56	54	52	50	48	45	-	
	F FLOW KG/H/ENG 176	183	185	185	179	175	169	162	154	-	
9000	IAS KT 182	183	183	183	179	175	170	166	163	154	
	TORQUE % 52	54	54	55	53	51	49	47	45	42	
	F FLOW KG/H/ENG 172	178	180	182	177	172	166	161	155	146	
8500	IAS KT 182	182	182	182	180	176	172	167	162	159	
	TORQUE % 50	52	53	53	53	51	49	47	45	43	
	F FLOW KG/H/ENG 168	173	175	177	174	170	164	158	153	147	
8000	IAS KT 181	182	181	181	180	176	172	168	163	159	
	TORQUE % 48	51	52	51	52	50	48	46	44	42	
	F FLOW KG/H/ENG 164	168	170	173	172	168	162	156	151	146	

17 MARCH 1999

SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL

ALL ENGINES OPERATING

PW118A/B ENGINES

INTERMEDIATE CRUISE

CRUISE CONFIGURATION

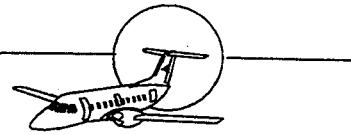
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 31000 FT

WEIGHT KG	IAS KT	TORQUE %	F FLOW KG/H/ENG	IOAT (° C)								
				-50	-40	-35	-30	-25	-20	-15	-10	-5
12000	IAS KT	184	178	-	-	-	-	-	-	-	-	-
	TORQUE %	61	61	-	-	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	203	199	-	-	-	-	-	-	-	-	-
11500	IAS KT	183	180	175	-	-	-	-	-	-	-	-
	TORQUE %	59	60	58	-	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	195	199	192	-	-	-	-	-	-	-	-
11000	IAS KT	182	183	179	174	162	-	-	-	-	-	-
	TORQUE %	57	58	58	56	52	-	-	-	-	-	-
	F FLOW KG/H/ENG	190	197	191	184	174	-	-	-	-	-	-
10500	IAS KT	182	182	181	177	171	161	-	-	-	-	-
	TORQUE %	55	57	57	55	53	50	-	-	-	-	-
	F FLOW KG/H/ENG	188	194	189	184	177	167	-	-	-	-	-
10000	IAS KT	181	181	180	176	174	169	159	-	-	-	-
	TORQUE %	52	56	56	55	53	51	48	-	-	-	-
	F FLOW KG/H/ENG	175	181	186	181	176	170	160	-	-	-	-
9500	IAS KT	180	180	180	176	174	170	166	156	-	-	-
	TORQUE %	51	53	54	54	52	50	48	45	-	-	-
	F FLOW KG/H/ENG	175	180	183	178	173	168	162	153	-	-	-
9000	IAS KT	178	179	179	177	174	170	167	162	154	-	-
	TORQUE %	50	53	53	53	51	49	47	45	42	-	-
	F FLOW KG/H/ENG	168	174	176	175	171	165	160	154	146	-	-
8500	IAS KT	178	179	179	178	175	172	167	164	159	151	-
	TORQUE %	48	50	51	52	51	48	47	45	43	40	-
	F FLOW KG/H/ENG	164	169	171	172	168	163	158	152	147	139	-
8000	IAS KT	178	178	178	178	175	172	167	164	159	155	-
	TORQUE %	47	49	49	51	50	48	46	44	42	40	-
	F FLOW KG/H/ENG	159	164	166	168	166	161	155	150	145	139	-


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A/B ENGINES
INTERMEDIATE CRUISE
CRUISE CONFIGURATION

NP: 85%

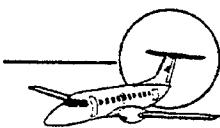
BLEED SWITCH : AUTO

PACK CONTROL SELECTOR : LOW

ALTITUDE: 32000 FT

WEIGHT KG	IOAT (° C)										
	-50	-40	-35	-30	-25	-20	-15	-10	-5	0	
12000	IAS KT 180	-	-	-	-	-	-	-	-	-	
	TORQUE % 62	-	-	-	-	-	-	-	-	-	
	F FLOW KG/H/ENG 203	-	-	-	-	-	-	-	-	-	
11500	IAS KT 180	172	-	-	-	-	-	-	-	-	
	TORQUE % 58	57	-	-	-	-	-	-	-	-	
	F FLOW KG/H/ENG 196	188	-	-	-	-	-	-	-	-	
11000	IAS KT 179	177	171	-	-	-	-	-	-	-	
	TORQUE % 57	57	55	-	-	-	-	-	-	-	
	F FLOW KG/H/ENG 187	189	181	-	-	-	-	-	-	-	
10500	IAS KT 178	178	174	169	158	-	-	-	-	-	
	TORQUE % 54	55	55	53	50	-	-	-	-	-	
	F FLOW KG/H/ENG 181	187	182	175	165	-	-	-	-	-	
10000	IAS KT 178	178	176	172	167	156	-	-	-	-	
	TORQUE % 53	53	54	52	51	47	-	-	-	-	
	F FLOW KG/H/ENG 177	178	179	175	168	159	-	-	-	-	
9500	IAS KT 176	176	176	174	169	164	155	-	-	-	
	TORQUE % 50	51	52	52	50	48	45	-	-	-	
	F FLOW KG/H/ENG 169	172	176	172	167	161	152	-	-	-	
9000	IAS KT 176	176	176	174	171	166	162	152	-	-	
	TORQUE % 49	50	50	51	49	48	46	43	-	-	
	F FLOW KG/H/ENG 165	170	170	169	164	159	154	145	-	-	
8500	IAS KT 174	174	174	173	169	166	164	158	150	-	
	TORQUE % 47	48	49	50	48	47	45	43	40	-	
	F FLOW KG/H/ENG 158	162	163	166	161	157	151	146	138	-	
8000	IAS KT 173	173	173	173	170	166	163	159	156	148	
	TORQUE % 45	46	47	49	48	46	44	43	41	38	
	F FLOW KG/H/ENG 155	160	163	163	159	154	149	144	140	132	

17 MARCH 1999



SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 5000 FT

WEIGHT KG	IAS KT % F FLOW KG/H/ENG	IOAT (°C)									
		-50	-30	-20	-10	0	10	20	30	40	50
12000	IAS KT % F FLOW KG/H/ENG	182 82 344	183 86 359	182 87 365	182 89 373	182 90 379	181 92 385	181 93 391	180 94 396	161 82 361	- - -
11500	IAS KT % F FLOW KG/H/ENG	180 78 332	180 81 345	180 83 353	180 84 358	179 86 366	179 88 372	179 89 378	178 90 384	166 82 364	- - -
11000	IAS KT % F FLOW KG/H/ENG	178 74 321	177 78 333	178 79 341	178 81 346	177 82 354	177 84 360	177 85 365	177 86 371	171 84 366	- - -
10500	IAS KT % F FLOW KG/H/ENG	175 71 308	175 74 322	175 75 327	176 77 335	176 78 342	175 79 346	175 81 351	175 82 359	174 83 363	149 67 318
10000	IAS KT % F FLOW KG/H/ENG	173 67 299	173 70 309	173 71 316	173 73 323	173 74 329	173 76 334	173 77 340	172 78 345	173 80 353	155 66 319
9500	IAS KT % F FLOW KG/H/ENG	171 64 287	171 67 301	171 68 306	171 69 311	171 70 318	171 72 323	171 73 329	171 74 334	170 75 339	158 68 322
9000	IAS KT % F FLOW KG/H/ENG	169 61 279	169 63 289	168 64 295	169 66 301	169 67 306	168 68 311	168 69 318	169 70 323	168 71 328	163 69 323
8500	IAS KT % F FLOW KG/H/ENG	167 58 270	167 60 281	167 61 286	167 62 291	166 63 296	166 64 301	166 65 306	166 66 311	166 68 318	166 68 321
8000	IAS KT % F FLOW KG/H/ENG	165 55 261	165 57 272	165 58 277	164 59 281	165 60 286	164 61 291	164 62 296	164 63 301	164 64 306	164 65 311


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ONE ENGINE INOPERATIVE
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 100%

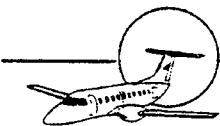
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 6000 FT

	WEIGHT KG	IOAT (°C)											
		-50	-30	-20	-10	0	10	20	30	40	50		
12000	IAS KT TORQUE % F FLOW KG/H/ENG	181 83 342	181 86 357	181 87 363	181 89 371	180 91 377	179 92 383	180 94 390	177 94 392	- - -	- - -		
11500	IAS KT TORQUE % F FLOW KG/H/ENG	179 79 330	179 82 345	179 83 350	178 85 356	178 86 364	178 88 370	177 89 376	176 90 380	155 77 341	- - -		
11000	IAS KT TORQUE % F FLOW KG/H/ENG	176 75 319	176 78 331	177 80 338	176 81 344	176 82 349	176 84 357	176 85 363	175 86 367	162 78 343	- - -		
10500	IAS KT TORQUE % F FLOW KG/H/ENG	174 71 306	174 74 320	174 75 325	174 77 332	174 78 337	173 79 343	173 81 350	173 82 356	166 78 345	- - -		
10000	IAS KT TORQUE % F FLOW KG/H/ENG	171 67 295	171 70 307	171 72 314	172 73 321	172 74 326	171 76 331	171 77 337	171 78 342	170 79 346	147 64 305		
9500	IAS KT TORQUE % F FLOW KG/H/ENG	169 64 284	169 67 296	169 68 303	169 69 308	169 71 315	170 72 320	169 73 325	169 74 330	168 75 334	153 65 306		
9000	IAS KT TORQUE % F FLOW KG/H/ENG	167 61 275	167 63 286	167 64 291	167 66 297	167 67 302	167 68 307	167 69 313	167 70 319	166 71 323	156 65 308		
8500	IAS KT TORQUE % F FLOW KG/H/ENG	165 58 265	165 60 276	165 61 281	165 62 285	165 63 292	165 64 297	165 65 302	165 67 307	165 68 312	161 66 311		
8000	IAS KT TORQUE % F FLOW KG/H/ENG	163 55 257	163 57 267	163 58 271	163 59 276	163 60 281	163 61 287	162 62 290	162 63 295	162 64 302	162 65 305		

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SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 7000 FT

WEIGHT KG	IAS KT	TORQUE %	IOAT (°C)									
			-50	-30	-20	-10	0	10	20	30	40	50
12000	IAS KT	181	180	179	179	178	178	178	178	167	-	-
	TORQUE %	83	86	88	90	91	93	94	94	88	-	-
	F FLOW KG/H/ENG	343	356	361	369	375	382	388	388	372	-	-
11500	IAS KT	178	177	177	177	177	176	176	176	173	-	-
	TORQUE %	79	82	84	85	87	88	90	90	89	-	-
	F FLOW KG/H/ENG	331	343	349	354	362	366	374	374	375	-	-
11000	IAS KT	175	176	175	174	175	175	175	174	173	149	-
	TORQUE %	75	79	80	81	83	84	85	85	86	72	-
	F FLOW KG/H/ENG	315	331	336	341	349	355	359	359	365	322	-
10500	IAS KT	172	173	173	172	172	172	172	172	171	157	-
	TORQUE %	71	74	76	77	78	80	81	81	82	73	-
	F FLOW KG/H/ENG	304	317	324	329	335	340	348	348	352	325	-
10000	IAS KT	170	170	170	171	170	170	170	170	170	161	-
	TORQUE %	68	70	72	73	74	76	77	77	78	74	-
	F FLOW KG/H/ENG	293	304	311	318	323	328	334	334	339	329	-
9500	IAS KT	168	168	168	168	168	168	168	167	167	166	145
	TORQUE %	64	67	68	69	71	72	73	73	74	74	62
	F FLOW KG/H/ENG	282	294	298	305	312	317	320	320	327	329	292
9000	IAS KT	165	165	165	165	165	165	165	165	165	165	150
	TORQUE %	60	63	64	65	67	68	69	70	71	71	62
	F FLOW KG/H/ENG	270	281	288	293	299	304	309	314	319	319	294
8500	IAS KT	163	163	163	163	163	163	163	163	163	163	155
	TORQUE %	57	60	61	62	63	64	65	66	67	67	63
	F FLOW KG/H/ENG	261	271	276	282	287	292	299	303	308	308	297
8000	IAS KT	162	161	161	161	161	161	161	161	161	161	158
	TORQUE %	55	56	57	58	59	60	61	61	63	64	63
	F FLOW KG/H/ENG	252	262	266	273	277	282	287	292	296	296	296


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ONE ENGINE INOPERATIVE
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 8000 FT

WEIGHT KG			IOAT (°C)									
			-50	-30	-20	-10	0	10	20	30	40	50
12000	IAS TORQUE F FLOW	KT % KG/H/ENG	180 84 343	179 87 354	178 89 362	178 90 367	177 91 374	177 93 380	175 94 382	159 84 353	- - -	- - -
11500	IAS TORQUE F FLOW	KT % KG/H/ENG	177 80 329	176 83 341	176 84 347	175 86 354	175 87 360	175 89 366	175 90 372	164 84 357	- - -	- - -
11000	IAS TORQUE F FLOW	KT % KG/H/ENG	174 76 315	174 79 329	174 80 334	173 81 340	173 83 347	172 84 351	172 86 358	170 86 359	- - -	- - -
10500	IAS TORQUE F FLOW	KT % KG/H/ENG	171 72 302	171 75 315	171 76 320	171 77 327	171 79 333	171 80 338	170 81 343	169 82 347	144 68 305	- - -
10000	IAS TORQUE F FLOW	KT % KG/H/ENG	169 68 291	169 71 302	169 72 309	169 73 314	168 75 319	169 76 326	169 77 331	168 79 337	152 68 307	- - -
9500	IAS TORQUE F FLOW	KT % KG/H/ENG	166 64 278	166 67 291	166 68 296	166 69 302	166 71 307	166 72 312	166 73 317	166 75 324	156 69 310	135 58 279
9000	IAS TORQUE F FLOW	KT % KG/H/ENG	164 61 268	164 63 279	164 64 283	164 66 290	164 67 296	164 68 301	164 69 306	163 70 311	161 70 311	144 59 281
8500	IAS TORQUE F FLOW	KT % KG/H/ENG	162 57 256	161 59 267	162 61 273	162 62 278	161 63 284	162 64 289	162 65 294	161 66 298	161 67 303	149 59 282
8000	IAS TORQUE F FLOW	KT % KG/H/ENG	160 54 249	159 56 257	159 57 263	159 58 268	159 59 272	159 60 277	159 61 283	159 63 288	159 64 293	152 60 283

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SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

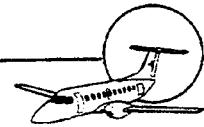
NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 9000 FT

WEIGHT KG	IAS KT F FLOW KG/H/ENG	TORQUE % KG/H/ENG	IOAT (°C)									
			-50	-30	-20	-10	0	10	20	30	40	50
12000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	179 85 342	178 88 355	177 89 361	176 91 366	176 92 373	175 94 379	169 91 372	- - -	- - -	- - -
11500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	176 81 329	175 84 340	175 85 347	174 86 353	174 88 359	174 89 365	171 90 367	154 90 335	- - -	- - -
11000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	173 76 314	173 79 327	172 80 332	172 82 338	171 83 343	171 85 349	171 86 357	160 80 337	- - -	- - -
10500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	170 72 300	170 75 313	170 76 318	170 78 325	170 79 330	169 80 336	169 82 341	164 80 339	- - -	- - -
10000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	168 68 289	168 71 300	168 72 306	167 73 311	167 75 317	167 76 323	167 77 329	166 78 332	143 65 293	- - -
9500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	165 64 276	165 67 287	165 68 293	165 70 300	165 71 305	165 72 310	165 73 315	164 75 320	149 65 294	- - -
9000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	162 61 264	162 63 276	162 64 281	163 66 287	163 67 293	162 68 297	162 69 303	162 70 308	153 66 296	134 56 267
8500	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	160 57 254	160 59 264	160 61 270	160 62 275	160 63 281	160 64 286	160 65 290	160 66 295	158 67 298	142 56 269
8000	IAS TORQUE F FLOW KG/H/ENG	KT % KG/H/ENG	158 54 245	158 56 255	158 57 259	158 58 265	157 59 269	158 60 274	158 61 278	158 62 283	157 63 288	146 57 272



CRUISE CONTROL ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 10000 FT

WEIGHT KG	IOAT (°C)										
	-50	-40	-30	-20	-10	0	10	20	30	40	
12000	IAS KT F FLOW KG/H/ENG	178 85 341	177 87 349	177 89 354	176 90 360	175 91 366	174 92 372	172 93 374	160 86 353	- - -	-
11500	IAS KT F FLOW KG/H/ENG	175 81 328	174 83 334	174 84 341	173 85 346	173 87 352	173 88 358	171 89 362	165 86 355	- - -	-
11000	IAS KT F FLOW KG/H/ENG	172 77 314	172 78 319	172 80 326	171 81 331	171 82 336	170 84 342	170 85 350	168 86 352	148 74 316	-
10500	IAS KT F FLOW KG/H/ENG	170 73 300	170 74 307	169 75 312	169 77 317	168 78 323	168 79 329	167 81 334	167 82 340	155 75 318	-
10000	IAS KT F FLOW KG/H/ENG	167 69 287	166 70 293	167 72 300	166 73 304	166 74 309	166 75 316	166 77 321	165 77 325	160 76 322	-
9500	IAS KT F FLOW KG/H/ENG	164 65 274	164 66 280	164 67 287	164 69 291	164 70 297	163 71 302	163 72 307	163 74 312	161 74 316	141 62 281
9000	IAS KT F FLOW KG/H/ENG	161 61 262	161 62 268	161 63 274	161 65 279	161 66 285	161 67 289	161 68 294	161 69 300	161 71 305	148 63 282
8500	IAS KT F FLOW KG/H/ENG	159 57 252	158 58 256	159 60 262	158 61 266	159 62 272	159 63 278	159 64 283	158 65 288	158 66 292	152 63 285
8000	IAS KT F FLOW KG/H/ENG	156 54 241	156 55 246	156 56 250	156 57 256	156 58 260	156 59 266	156 60 271	156 61 275	156 62 280	155 63 281

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ONE ENGINE INOPERATIVE**

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

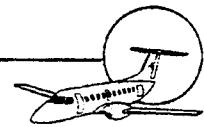
NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 11000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-20	-10	0	10	20	30	40		
12000	IAS TORQUE F FLOW KG/H/ENG	KT % 341	176 86 348	176 88 356	175 89 362	175 91 365	173 92 365	172 93 370	167 92 370	- - -	- - -	- - -
11500	IAS TORQUE F FLOW KG/H/ENG	KT % 328	174 82 335	174 83 340	173 85 345	172 86 351	172 88 357	171 89 357	168 89 359	157 89 339	- - -	- - -
11000	IAS TORQUE F FLOW KG/H/ENG	KT % 313	171 78 320	171 79 325	170 80 325	170 82 332	169 83 335	169 85 343	168 86 347	162 83 340	- - -	- - -
10500	IAS TORQUE F FLOW KG/H/ENG	KT % 301	169 74 305	168 75 310	168 76 317	167 77 322	167 79 327	167 80 327	166 81 333	165 82 337	142 70 299	- - -
10000	IAS TORQUE F FLOW KG/H/ENG	KT % 285	166 69 292	166 71 298	165 72 303	165 73 308	165 74 308	164 76 313	163 77 318	164 78 325	151 70 301	- - -
9500	IAS TORQUE F FLOW KG/H/ENG	KT % 273	162 65 279	163 67 285	163 68 289	162 69 295	162 70 295	162 71 300	162 73 305	161 73 308	155 71 304	- - -
9000	IAS TORQUE F FLOW KG/H/ENG	KT % 260	160 61 266	160 62 272	160 64 278	160 65 282	160 66 287	160 67 287	160 68 292	160 70 298	158 70 300	140 60 269
8500	IAS TORQUE F FLOW KG/H/ENG	KT % 248	157 57 254	157 59 260	157 60 264	157 61 270	158 62 274	157 63 274	157 64 279	157 65 285	157 67 289	146 60 271
8000	IAS TORQUE F FLOW KG/H/ENG	KT % 238	155 54 244	155 55 248	155 56 252	155 57 258	155 58 258	155 59 264	155 60 268	155 62 268	154 62 272	150 60 273


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ONE ENGINE INOPERATIVE
PW118A ENGINES
LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 12000 FT

WEIGHT KG	IAS KT	TORQUE %	IOAT (°C)									
			-50	-40	-30	-20	-10	0	10	20	30	40
12000	IAS KT	175	175	174	173	171	169	158	-	-	-	-
	TORQUE %	87	88	90	91	92	93	87	-	-	-	-
	F FLOW KG/H/ENG	342	348	355	359	365	367	349	-	-	-	-
11500	IAS KT	173	172	172	171	170	169	164	-	-	-	-
	TORQUE %	82	84	85	87	88	89	88	-	-	-	-
	F FLOW KG/H/ENG	327	334	339	347	350	354	354	-	-	-	-
11000	IAS KT	170	170	169	169	168	167	165	154	-	-	-
	TORQUE %	78	80	81	82	84	85	85	79	-	-	-
	F FLOW KG/H/ENG	314	319	326	331	336	342	344	325	-	-	-
10500	IAS KT	168	167	167	166	166	165	165	160	-	-	-
	TORQUE %	74	75	77	78	79	81	82	80	-	-	-
	F FLOW KG/H/ENG	299	304	311	316	321	328	332	327	-	-	-
10000	IAS KT	165	165	164	164	163	163	163	161	137	-	-
	TORQUE %	70	71	72	74	75	76	77	78	65	-	-
	F FLOW KG/H/ENG	286	290	297	301	308	311	318	322	282	-	-
9500	IAS KT	162	162	162	161	161	161	160	160	146	-	-
	TORQUE %	65	67	68	69	70	72	73	74	66	-	-
	F FLOW KG/H/ENG	271	279	283	288	292	299	302	308	285	-	-
9000	IAS KT	159	159	159	159	158	158	158	157	151	130	-
	TORQUE %	62	63	64	65	66	68	69	70	67	57	-
	F FLOW KG/H/ENG	259	264	270	274	280	285	291	294	287	257	-
8500	IAS KT	156	156	156	156	156	156	156	156	154	138	-
	TORQUE %	57	59	60	61	62	63	65	66	66	57	-
	F FLOW KG/H/ENG	246	252	258	263	267	272	276	282	284	258	-
8000	IAS KT	153	153	153	153	154	154	153	153	153	143	-
	TORQUE %	54	55	56	57	59	60	61	62	63	57	-
	F FLOW KG/H/ENG	235	240	246	250	255	261	265	269	274	260	-

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EMBRAER
EMB120 Brasilia

CRUISE CONTROL

**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ONE ENGINE INOPERATIVE**

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

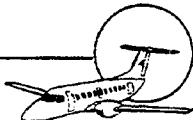
NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 13000 FT

WEIGHT KG	IAS KT % F FLOW KG/H/ENG	IOAT (°C)											
		-50	-40	-30	-20	-10	0	10	20	30	40		
12000	IAS TORQUE F FLOW KG/H/ENG	174 87 342	173 89 348	172 90 355	171 91 360	169 92 362	165 92 364	- - -	- - -	- - -	- - -	- - -	
11500	IAS TORQUE F FLOW KG/H/ENG	172 83 328	171 84 333	171 86 341	169 87 345	168 88 350	165 89 351	155 83 335	- - -	- - -	- - -	- - -	
11000	IAS TORQUE F FLOW KG/H/ENG	169 79 313	169 80 320	168 82 325	168 83 330	167 84 336	165 85 339	161 84 339	- - -	- - -	- - -	- - -	
10500	IAS TORQUE F FLOW KG/H/ENG	167 75 299	166 76 305	166 77 310	165 78 315	165 80 322	164 81 325	162 81 329	151 76 312	- - -	- - -	- - -	
10000	IAS TORQUE F FLOW KG/H/ENG	164 70 285	164 72 291	163 73 295	163 74 302	162 75 305	162 76 312	161 78 317	157 77 316	- - -	- - -	- - -	
9500	IAS TORQUE F FLOW KG/H/ENG	161 66 271	161 67 277	160 69 281	160 70 288	160 71 292	159 72 297	159 73 302	158 74 307	134 62 267	- - -	- - -	
9000	IAS TORQUE F FLOW KG/H/ENG	158 62 258	158 63 264	158 65 268	157 65 273	157 67 278	157 68 283	156 69 287	156 70 292	142 62 269	- - -	- - -	
8500	IAS TORQUE F FLOW KG/H/ENG	155 58 245	155 59 250	155 60 256	155 62 261	155 63 265	155 64 270	154 65 276	154 66 279	147 63 272	129 54 246	- - -	
8000	IAS TORQUE F FLOW KG/H/ENG	152 54 233	152 55 238	152 56 243	152 58 249	152 59 253	152 60 257	152 61 261	152 62 266	150 62 268	138 55 248	- - -	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**CRUISE CONTROL
ONE ENGINE INOPERATIVE**
PW118A ENGINES**LONG RANGE CRUISE**

CRUISE CONFIGURATION

NP: 100%

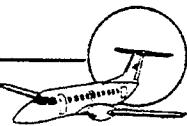
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 14000 FT

WEIGHT KG	IAS KT	TORQUE %	F FLOW KG/H/ENG	IOAT (°C)									
				-50	-40	-30	-20	-10	0	10	20	30	40
12000	IAS KT	172	171	171	168	165	153	-	-	-	-	-	-
	TORQUE %	87	89	91	91	92	87	-	-	-	-	-	-
	F FLOW KG/H/ENG	342	348	354	359	361	344	-	-	-	-	-	-
11500	IAS KT	170	170	169	167	165	162	-	-	-	-	-	-
	TORQUE %	83	85	86	87	88	88	-	-	-	-	-	-
	F FLOW KG/H/ENG	328	335	339	345	347	350	-	-	-	-	-	-
11000	IAS KT	168	168	167	166	165	162	152	-	-	-	-	-
	TORQUE %	79	81	82	83	84	85	80	-	-	-	-	-
	F FLOW KG/H/ENG	313	319	325	330	334	336	321	-	-	-	-	-
10500	IAS KT	166	165	164	164	163	162	158	-	-	-	-	-
	TORQUE %	75	76	78	79	80	81	81	-	-	-	-	-
	F FLOW KG/H/ENG	300	304	309	316	321	325	324	-	-	-	-	-
10000	IAS KT	163	163	162	161	161	160	159	147	-	-	-	-
	TORQUE %	71	72	73	75	76	77	78	72	-	-	-	-
	F FLOW KG/H/ENG	285	290	296	301	305	311	314	295	-	-	-	-
9500	IAS KT	160	160	159	159	158	158	158	153	-	-	-	-
	TORQUE %	67	68	69	70	71	72	74	72	-	-	-	-
	F FLOW KG/H/ENG	272	276	280	286	291	296	302	298	-	-	-	-
9000	IAS KT	157	157	157	156	156	155	155	154	132	-	-	-
	TORQUE %	63	64	65	66	67	68	69	70	59	-	-	-
	F FLOW KG/H/ENG	257	263	268	271	277	281	286	291	256	-	-	-
8500	IAS KT	154	154	154	154	153	153	153	152	140	-	-	-
	TORQUE %	58	60	61	62	63	64	65	66	59	-	-	-
	F FLOW KG/H/ENG	243	250	254	259	263	268	272	277	257	-	-	-
8000	IAS KT	151	151	151	151	151	151	150	150	145	130	-	-
	TORQUE %	54	55	57	58	59	60	61	62	60	52	-	-
	F FLOW KG/H/ENG	231	236	242	247	251	255	259	265	259	236	-	-

20 NOVEMBER 1992



SUPPLEMENTARY PERFORMANCE
MANUAL

CRUISE CONTROL
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

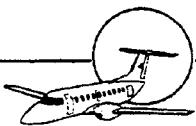
NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 15000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-20	-10	-5	0	10	20	30		
12000	IAS KT % F FLOW KG/H/ENG	171 88 343	170 90 351	168 91 356	166 92 360	159 91 356	- - -	- - -	- - -	- - -	- - -	- - -
11500	IAS KT % F FLOW KG/H/ENG	169 84 328	168 85 334	167 87 340	166 88 346	162 88 346	158 87 343	151 84 331	- - -	- - -	- - -	- - -
11000	IAS KT % F FLOW KG/H/ENG	167 80 314	167 81 319	165 82 325	164 84 330	162 84 333	160 84 333	158 84 335	- - -	- - -	- - -	- - -
10500	IAS KT % F FLOW KG/H/ENG	165 76 299	164 77 304	164 78 310	162 79 316	161 80 319	160 81 321	159 81 321	149 77 308	- - -	- - -	- - -
10000	IAS KT % F FLOW KG/H/ENG	162 71 285	161 73 291	161 74 295	160 75 300	159 76 305	159 77 306	158 77 308	156 77 311	- - -	- - -	- - -
9500	IAS KT % F FLOW KG/H/ENG	159 67 271	159 68 276	158 70 281	158 71 285	157 72 290	157 72 293	157 73 296	156 74 299	144 67 279	- - -	- - -
9000	IAS KT % F FLOW KG/H/ENG	157 63 257	156 64 261	155 65 267	155 66 271	155 67 275	154 68 277	154 68 280	154 70 286	149 68 282	- - -	- - -
8500	IAS KT % F FLOW KG/H/ENG	153 59 243	153 60 248	153 61 254	152 62 258	152 63 262	152 64 265	152 64 266	151 65 270	150 66 275	133 56 246	- - -
8000	IAS KT % F FLOW KG/H/ENG	150 55 230	150 56 235	150 57 240	150 58 244	149 59 249	149 60 252	149 60 253	149 61 257	149 62 261	138 57 249	- - -


**SUPPLEMENTARY PERFORMANCE
MANUAL**
**CRUISE CONTROL
ONE ENGINE INOPERATIVE**
PW118A ENGINES**LONG RANGE CRUISE**

CRUISE CONFIGURATION

NP: 100%

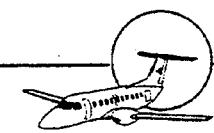
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 16000 FT

WEIGHT KG		IOAT (°C)										
		-50	-40	-30	-20	-10	-5	0	10	20	30	
12000	IAS KT F FLOW	169 89 344	168 90 351	166 92 357	162 92 358	-	-	-	-	-	-	
11500	TORQUE % KG/H/ENG											
11000	IAS KT F FLOW	167 84 329	167 86 337	165 87 339	163 88 345	155 86 340	-	-	-	-	-	
10500	TORQUE % KG/H/ENG											
10000	IAS KT F FLOW	163 76 299	163 77 305	162 79 310	161 80 316	158 80 318	157 81 319	156 81 320	-	-	-	
9500	TORQUE % KG/H/ENG											
9000	IAS KT F FLOW	161 72 284	160 73 290	160 75 296	159 76 301	157 76 303	157 77 306	156 77 307	147 73 295	-	-	
8500	TORQUE % KG/H/ENG											
8000	IAS KT F FLOW	158 68 270	158 69 276	157 70 280	157 71 286	156 72 291	155 73 292	155 73 294	152 73 296	-	-	
7500	TORQUE % KG/H/ENG											
7000	IAS KT F FLOW	156 64 256	155 65 262	154 66 266	154 67 270	153 68 274	153 68 277	153 69 280	153 70 285	140 63 264	-	
6500	TORQUE % KG/H/ENG											
6000	IAS KT F FLOW	152 59 243	152 60 247	152 61 252	151 62 256	151 64 262	150 64 262	150 64 265	150 66 270	146 64 267	-	
5500	TORQUE % KG/H/ENG											
5000	IAS KT F FLOW	149 55 228	149 56 234	149 57 238	149 58 243	148 59 247	148 60 250	148 60 251	148 61 257	146 62 258	132 54 235	

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ONE ENGINE INOPERATIVE**

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION
NP: 100%
BLEED SWITCH: AUTO
PACK CONTROL SELECTOR: LOW

ALTITUDE: 17000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-20	-10	-5	0	10	20	30		
12000	IAS KT F FLOW KG/H/ENG	168 90 348	166 91 354	163 92 357	152 89 348	- - -	- - -	- - -	- - -	- - -	- - -	
11500	IAS TORQUE F FLOW KG/H/ENG	166 85 330	164 86 336	163 88 344	158 88 343	- - -	- - -	- - -	- - -	- - -	- - -	
11000	IAS TORQUE F FLOW KG/H/ENG	164 81 315	163 82 320	162 83 326	159 84 330	153 83 326	145 80 313	- - -	- - -	- - -	- - -	
10500	IAS TORQUE F FLOW KG/H/ENG	162 76 299	161 78 304	160 79 309	159 80 315	155 80 316	153 80 316	147 77 304	- - -	- - -	- - -	
10000	IAS TORQUE F FLOW KG/H/ENG	160 72 285	159 74 291	158 75 294	157 76 299	155 77 303	154 77 304	153 77 305	- - -	- - -	- - -	
9500	IAS TORQUE F FLOW KG/H/ENG	157 68 271	157 69 276	156 71 281	156 72 286	154 72 288	154 73 290	153 74 294	145 70 284	- - -	- - -	
9000	IAS TORQUE F FLOW KG/H/ENG	154 64 257	154 65 261	154 66 266	153 67 271	152 68 275	152 69 277	152 70 280	149 69 280	- - -	- - -	
8500	IAS TORQUE F FLOW KG/H/ENG	152 60 242	151 61 246	151 62 251	150 63 255	149 64 259	149 64 262	150 65 265	149 66 265	137 60 271	142 60 249	
8000	IAS TORQUE F FLOW KG/H/ENG	148 55 228	148 57 233	148 58 237	147 58 240	147 60 246	147 60 247	147 61 251	146 61 251	142 60 254	142 60 252	


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ONE ENGINE INOPERATIVE
PW118A ENGINES
LONG RANGE CRUISE
CRUISE CONFIGURATION

NP: 100%

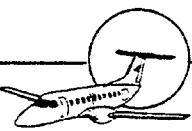
BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 18000 FT

WEIGHT KG	IOAT (°C)											
		-50	-40	-30	-20	-10	-5	0	10	20	30	
12000	IAS KT TORQUE F FLOW KG/H/ENG	166 90 350	163 92 354	158 92 358	- -	- -	- -	- -	- -	- -	- -	
11500	IAS KT TORQUE F FLOW KG/H/ENG	165 86 332	163 87 339	159 88 342	149 85 332	- -	- -	- -	- -	- -	- -	
11000	IAS KT TORQUE F FLOW KG/H/ENG	162 81 316	161 83 322	160 84 327	155 84 328	- -	- -	- -	- -	- -	- -	
10500	IAS KT TORQUE F FLOW KG/H/ENG	160 77 299	160 78 306	158 80 310	156 80 313	150 79 311	143 76 300	- -	- -	- -	- -	
10000	IAS KT TORQUE F FLOW KG/H/ENG	158 73 285	157 74 290	156 75 295	156 76 300	152 77 301	151 77 303	144 73 291	- -	- -	- -	
9500	IAS KT TORQUE F FLOW KG/H/ENG	156 69 272	155 70 274	155 71 280	154 72 285	152 73 288	151 73 289	149 73 290	136 67 269	- -	- -	
9000	IAS KT TORQUE F FLOW KG/H/ENG	153 64 256	153 66 260	152 67 266	152 68 271	151 69 274	150 69 276	150 70 278	142 67 270	- -	- -	
8500	IAS KT TORQUE F FLOW KG/H/ENG	151 60 241	150 61 246	150 62 250	149 63 255	148 64 260	148 65 263	148 66 265	146 66 265	- -	- -	
8000	IAS KT TORQUE F FLOW KG/H/ENG	148 56 228	147 57 232	147 58 237	146 59 241	146 60 244	145 60 247	145 61 248	145 62 254	134 56 236	- -	

20 NOVEMBER 1992

SUPPLEMENTARY PERFORMANCE
MANUALCRUISE CONTROL
ONE ENGINE INOPERATIVE

PW118A ENGINES

LONG RANGE CRUISE

CRUISE CONFIGURATION

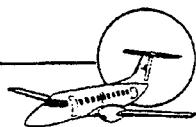
NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 19000 FT

WEIGHT KG	IAS KT	TORQUE %	F FLOW KG/H/ENG	IOAT (°C)									
				-50	-40	-30	-20	-10	-5	0	10	20	30
12000	IAS KT	164	159	-	-	-	-	-	-	-	-	-	-
	TORQUE %	91	92	-	-	-	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	353	355	-	-	-	-	-	-	-	-	-	-
11500	IAS KT	162	160	155	-	-	-	-	-	-	-	-	-
	TORQUE %	86	88	88	-	-	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	335	339	342	-	-	-	-	-	-	-	-	-
11000	IAS KT	161	159	156	146	-	-	-	-	-	-	-	-
	TORQUE %	82	83	84	81	-	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	317	322	327	317	-	-	-	-	-	-	-	-
10500	IAS KT	159	158	157	152	-	-	-	-	-	-	-	-
	TORQUE %	77	79	80	80	-	-	-	-	-	-	-	-
	F FLOW KG/H/ENG	302	306	312	313	-	-	-	-	-	-	-	-
10000	IAS KT	157	156	155	153	148	141	-	-	-	-	-	-
	TORQUE %	73	74	76	76	76	73	-	-	-	-	-	-
	F FLOW KG/H/ENG	285	290	296	298	298	288	-	-	-	-	-	-
9500	IAS KT	155	154	153	152	150	148	142	-	-	-	-	-
	TORQUE %	69	70	71	72	73	73	70	-	-	-	-	-
	F FLOW KG/H/ENG	270	276	279	284	286	288	281	-	-	-	-	-
9000	IAS KT	152	152	151	150	149	149	146	133	-	-	-	-
	TORQUE %	65	66	67	68	69	70	69	-	-	-	-	-
	F FLOW KG/H/ENG	256	261	265	270	273	276	273	256	-	-	-	-
8500	IAS KT	150	149	148	148	147	147	146	141	-	-	-	-
	TORQUE %	61	62	63	64	65	65	66	64	-	-	-	-
	F FLOW KG/H/ENG	242	246	251	256	259	262	262	259	-	-	-	-
8000	IAS KT	147	146	145	145	145	145	144	143	124	-	-	-
	TORQUE %	56	57	58	60	60	61	61	62	53	-	-	-
	F FLOW KG/H/ENG	227	231	236	241	245	247	249	250	223	-	-	-


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ONE ENGINE INOPERATIVE
PW118A ENGINES
LONG RANGE CRUISE

CRUISE CONFIGURATION

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 20000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-20	-15	-10	-5	0	10	20		
12000	IAS KT % F FLOW KG/H/ENG	159 91 352	- - -	- - -								
11500	IAS KT % F FLOW KG/H/ENG	161 88 338	156 88 340	- - -	- - -							
11000	IAS KT % F FLOW KG/H/ENG	159 83 320	157 84 324	152 84 327	- - -	- - -	- - -	- - -	- - -	- - -	- - -	
10500	IAS KT % F FLOW KG/H/ENG	158 78 303	156 79 308	153 80 312	144 77 304	- - -	- - -	- - -	- - -	- - -	- - -	
10000	IAS KT % F FLOW KG/H/ENG	155 73 286	154 75 291	153 76 297	149 76 298	146 76 295	138 72 283	- - -	- - -	- - -	- - -	
9500	IAS KT % F FLOW KG/H/ENG	153 69 270	152 70 275	152 72 281	149 72 284	148 73 284	147 73 287	140 70 275	- - -	- - -	- - -	
9000	IAS KT % F FLOW KG/H/ENG	151 65 257	151 67 262	149 67 265	148 68 270	148 69 271	147 69 272	144 69 271	140 67 266	- - -	- - -	
8500	IAS KT % F FLOW KG/H/ENG	149 61 241	148 62 246	147 63 250	146 64 254	146 65 256	146 65 259	145 65 259	143 65 259	143 60 242	- - -	
8000	IAS KT % F FLOW KG/H/ENG	145 57 226	145 58 231	145 59 236	144 60 240	144 60 241	144 61 245	143 61 245	142 61 246	137 60 243	- - -	

20 NOVEMBER 1992



EMBRAER
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CRUISE CONTROL

**SUPPLEMENTARY PERFORMANCE
MANUAL
CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

LONG RANGE CRUISE

CONFIGURATION: LANDING GEAR DOWN AND FLAPS UP

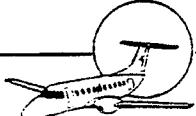
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 5000 FT

WEIGHT KG	IAS KT	TORQUE %	F FLOW KG/H/ENG	IOAT (°C)									
				-50	-30	-20	-10	0	10	20	30	40	50
11500	182	62	254	181	181	181	181	180	180	180	180	179	168
	TORQUE %	%		64	65	67	68	69	70	72	72	72	65
	F FLOW KG/H/ENG			264	270	275	279	284	289	295	298	298	283
11000	180	59	247	179	179	179	178	179	178	178	178	178	170
	TORQUE %	%		62	63	64	65	66	67	68	70	70	65
	F FLOW KG/H/ENG			259	263	268	272	279	283	288	293	293	284
10500	178	57	242	178	178	177	177	177	176	177	176	176	172
	TORQUE %	%		59	60	62	63	63	65	66	67	67	65
	F FLOW KG/H/ENG			252	257	263	267	272	276	281	285	285	284
10000	176	55	238	177	176	176	176	175	175	175	175	175	175
	TORQUE %	%		57	58	59	60	61	62	63	64	64	65
	F FLOW KG/H/ENG			248	252	258	262	265	269	274	279	279	285
9500	175	53	234	175	175	175	174	174	174	173	173	173	173
	TORQUE %	%		55	56	57	58	59	60	61	62	62	62
	F FLOW KG/H/ENG			242	248	252	256	260	265	269	272	272	276
9000	174	51	228	173	173	173	173	173	172	172	172	172	171
	TORQUE %	%		53	54	55	56	57	58	58	59	59	60
	F FLOW KG/H/ENG			236	242	247	252	256	259	263	267	267	271
8500	172	49	224	172	172	172	172	171	171	171	171	170	170
	TORQUE %	%		51	52	53	54	55	56	56	57	57	58
	F FLOW KG/H/ENG			232	237	242	246	250	254	258	261	261	265
8000	171	48	220	171	170	171	171	170	170	170	170	169	169
	TORQUE %	%		49	50	51	52	53	54	55	55	55	56
	F FLOW KG/H/ENG			228	232	238	242	246	250	254	257	257	261


**SUPPLEMENTARY PERFORMANCE
MANUAL**
CRUISE CONTROL
ALL ENGINES OPERATING
PW118A ENGINES
LONG RANGE CRUISE

CONFIGURATION: LANDING GEAR DOWN AND FLAPS UP

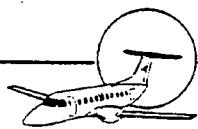
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 10000 FT

WEIGHT KG	IOAT (°C)										
	-50	-40	-30	-20	-10	0	10	20	30	40	
11500	IAS KT 172 TORQUE % 61 F FLOW KG/H/ENG 236	173 62 241	172 64 245	172 65 249	172 66 255	171 67 259	170 68 263	170 69 267	169 70 271	153 60 248	
11000	IAS KT 171 TORQUE % 58 F FLOW KG/H/ENG 229	170 60 233	170 61 238	170 62 242	170 63 247	170 64 252	169 65 256	168 66 260	168 67 264	157 60 249	
10500	IAS KT 169 TORQUE % 56 F FLOW KG/H/ENG 222	169 57 226	169 58 231	168 59 236	168 60 240	168 61 244	168 63 250	167 63 253	166 64 257	160 61 251	
10000	IAS KT 167 TORQUE % 53 F FLOW KG/H/ENG 216	167 54 219	167 56 225	167 57 230	167 58 233	166 59 237	166 60 243	166 61 247	165 62 251	163 61 251	
9500	IAS KT 165 TORQUE % 51 F FLOW KG/H/ENG 209	165 52 214	165 53 218	165 54 223	165 55 227	164 56 231	164 57 235	164 58 240	164 59 244	163 60 247	
9000	IAS KT 163 TORQUE % 49 F FLOW KG/H/ENG 204	163 50 208	163 51 212	163 52 217	163 52 221	162 53 224	162 54 228	162 55 232	162 56 237	162 57 241	
8500	IAS KT 162 TORQUE % 46 F FLOW KG/H/ENG 198	162 47 203	162 48 208	161 49 211	161 50 215	161 51 218	160 52 222	160 52 226	160 53 229	160 54 233	
8000	IAS KT 160 TORQUE % 44 F FLOW KG/H/ENG 194	160 45 197	160 46 202	160 47 205	160 48 209	159 49 214	159 49 216	159 50 220	158 51 223	158 52 227	



**SUPPLEMENTARY PERFORMANCE
MANUAL**

**CRUISE CONTROL
ALL ENGINES OPERATING**

PW118A ENGINES

LONG RANGE CRUISE

CONFIGURATION: LANDING GEAR DOWN AND FLAPS UP

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 15000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-20	-10	-5	0	10	20	30		
11500	IAS KT	165	164	164	164	163	162	162	161	-	-	-
	TORQUE %	52	63	64	66	67	67	68	69	-	-	-
	F FLOW KG/H/ENG	224	227	233	237	241	244	245	249	-	-	-
11000	IAS KT	163	163	162	161	161	161	160	159	153	-	-
	TORQUE %	59	60	61	62	64	64	64	65	63	-	-
	F FLOW KG/H/ENG	215	220	223	228	234	235	237	241	236	-	-
10500	IAS KT	161	160	161	160	159	159	159	158	158	-	-
	TORQUE %	56	57	58	59	60	61	62	62	64	-	-
	F FLOW KG/H/ENG	209	212	217	221	224	227	230	233	237	-	-
10000	IAS KT	159	159	158	158	158	157	157	157	156	147	
	TORQUE %	53	54	55	56	57	58	58	59	60	55	
	F FLOW KG/H/ENG	202	205	209	213	217	219	221	225	229	217	
9500	IAS KT	157	157	157	156	156	156	156	155	154	150	
	TORQUE %	51	51	53	54	55	55	56	56	57	55	
	F FLOW KG/H/ENG	194	198	202	206	210	212	213	217	221	218	
9000	IAS KT	155	155	154	154	154	154	154	154	153	152	
	TORQUE %	48	49	50	51	52	52	53	54	54	55	
	F FLOW KG/H/ENG	186	191	195	198	203	205	206	210	213	216	
8500	IAS KT	153	152	152	152	152	152	152	152	152	151	
	TORQUE %	45	46	47	48	49	49	50	51	52	52	
	F FLOW KG/H/ENG	180	184	189	192	195	197	199	203	206	210	
8000	IAS KT	151	151	150	150	150	150	150	150	149	149	
	TORQUE %	43	44	44	45	46	47	47	48	49	49	
	F FLOW KG/H/ENG	174	177	182	185	189	191	192	196	200	203	



CRUISE CONTROL

ALL ENGINES OPERATING

PW118A ENGINES

LONG RANGE CRUISE

CONFIGURATION: LANDING GEAR DOWN AND FLAPS UP

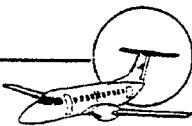
NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

ALTITUDE: 20000 FT

WEIGHT KG	IOAT (°C)											
	-50	-40	-30	-20	-15	-10	-5	0	10	20		
11500	IAS KT 158	157	157	157	156	154	-	-	-	-		
	TORQUE % 64	65	67	69	69	70	-	-	-	-		
	F FLOW KG/H/ENG 220	223	230	236	238	239	-	-	-	-		
11000	IAS KT 156	155	154	154	154	154	153	146	-	-		
	TORQUE % 60	62	63	65	65	66	67	63	-	-		
	F FLOW KG/H/ENG 210	213	217	225	226	229	231	222	-	-		
10500	IAS KT 154	153	152	151	151	152	151	150	-	-		
	TORQUE % 57	58	59	60	61	62	63	63	-	-		
	F FLOW KG/H/ENG 200	205	208	211	215	218	220	223	-	-		
10000	IAS KT 151	151	151	150	149	149	148	148	140	-		
	TORQUE % 54	55	56	57	58	58	59	59	56	-		
	F FLOW KG/H/ENG 191	195	200	203	205	206	209	212	205	-		
9500	IAS KT 149	149	149	148	148	147	147	147	146	-		
	TORQUE % 51	52	53	54	55	55	56	56	57	-		
	F FLOW KG/H/ENG 182	187	191	195	197	198	200	201	205	-		
9000	IAS KT 148	147	146	146	146	146	145	145	144	136		
	TORQUE % 48	49	50	51	51	52	52	53	54	50		
	F FLOW KG/H/ENG 176	179	182	185	189	191	191	193	197	188		
8500	IAS KT 145	145	145	145	143	144	144	143	143	141		
	TORQUE % 45	46	47	48	48	49	49	50	50	50		
	F FLOW KG/H/ENG 168	171	176	179	179	181	184	185	189	189		
8000	IAS KT 143	143	142	142	143	142	141	142	141	140		
	TORQUE % 43	43	44	45	46	46	46	47	47	48		
	F FLOW KG/H/ENG 161	165	167	171	173	174	175	177	180	183		



EMBRAER
EMB120 Brasilia

DESCENT

SUPPLEMENTARY PERFORMANCE MANUAL

DESCENT

ALL ENGINES OPERATING

PW118A ENGINES

RATE OF DESCENT : 3000 FT/MIN

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

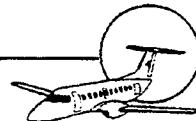
AIRSPEED: VMO OR 250 KIAS,
WHICHEVER IS LOWER

CRUISE ALTITUDE (FT)	FUEL CONSUMPTION (KG)	DISTANCE (NM)	TIME (MINUTES)
5000	10	7	2
10000	20	15	3
15000	30	23	5
20000	38	32	7
25000	44	41	8
30000	47	49	10
32000	48	53	11

NOTE: Distance and time values remain constant with weight change.

DESCENT

EMBRAER
EMB120 Brasilia



SUPPLEMENTARY PERFORMANCE
MANUAL

DESCENT

ALL ENGINES OPERATING

PW118A ENGINES

RATE OF DESCENT : 2000 FT/MIN (AP DESCENT MODE)

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

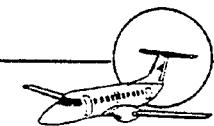
PACK CONTROL SELECTOR: LOW

AIRSPEED: VMO OR 250 KIAS,
WHICHEVER IS LOWER

CRUISE ALTITUDE (FT)	FUEL CONSUMPTION (KG)	DISTANCE (NM)	TIME (MINUTES)
5000	19	11	3
10000	37	22	5
15000	54	35	8
20000	71	48	10
25000	83	61	13
30000	92	74	15
32000	94	79	16

NOTE: Distance and time values remain constant with weight change.

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

HOLDING

ALL ENGINES OPERATING

PW118A ENGINES

CRUISE CONFIGURATION

NP: 85%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

LANDING GEAR: UP

FLAPS: UP

STANDARD ATMOSPHERE

AIRSPEED: 1.3 STALL SPEED

**WEIGHT KIAS
KG**

ALTITUDE - FT

					0	5000	10000	15000	20000	25000	30000	32000
12000	156	TORQUE FUEL FLOW FUEL CONSUMPTION	% kg/h/eng kg/h	33 226 452	35 204 407	38 187 373	40 175 349	44 169 337	48 168 337	53 176 352	- - -	
11500	152	TORQUE FUEL FLOW FUEL CONSUMPTION	% kg/h/eng kg/h	31 222 443	33 199 398	35 181 362	38 169 337	41 162 323	45 160 320	49 166 331	- - -	
11000	149	TORQUE FUEL FLOW FUEL CONSUMPTION	% kg/h/eng kg/h	29 217 435	31 194 388	33 176 352	36 163 326	39 155 310	42 152 304	46 156 312	48 160 319	
10500	146	TORQUE FUEL FLOW FUEL CONSUMPTION	% kg/h/eng kg/h	27 213 427	29 190 379	31 171 342	33 157 315	36 148 297	39 145 289	43 147 294	45 150 299	
10000	143	TORQUE FUEL FLOW FUEL CONSUMPTION	% kg/h/eng kg/h	25 210 419	27 185 371	29 166 333	31 152 304	34 142 285	37 138 275	40 138 277	41 140 281	
9500	140	TORQUE FUEL FLOW FUEL CONSUMPTION	% kg/h/eng kg/h	23 206 412	25 181 362	27 162 323	29 147 294	31 137 273	34 131 262	37 131 260	38 130 263	
9000	137	TORQUE FUEL FLOW FUEL CONSUMPTION	% kg/h/eng kg/h	22 202 404	23 177 354	25 157 315	27 142 284	29 131 262	31 124 249	34 122 245	35 123 246	
8500	134	TORQUE FUEL FLOW FUEL CONSUMPTION	% kg/h/eng kg/h	20 199 397	21 173 347	23 153 306	25 137 274	27 126 251	29 118 236	31 115 230	33 115 231	
8000	130	TORQUE FUEL FLOW FUEL CONSUMPTION	% kg/h/eng kg/h	19 195 391	20 170 339	21 149 298	23 133 265	24 120 241	26 112 225	29 108 217	30 108 216	

NOTE:

- Increase fuel flow 4 kg/h/engine for each 10°C above standard temperature.
- Decrease fuel flow 4 kg/h/engine for each 10°C below standard temperature.
- Torque value remains constant, regardless of the temperature change.

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**SUPPLEMENTARY PERFORMANCE
MANUAL**

HOLDING
ONE ENGINE INOPERATIVE
PW118A ENGINES

CRUISE CONFIGURATION

AIRSPEED: 1.3 STALL SPEED

NP: 100%

BLEED SWITCH: AUTO

PACK CONTROL SELECTOR: LOW

LANDING GEAR: UP

FLAPS: UP

STANDARD ATMOSPHERE

**WEIGHT KIAS
KG**
ALTITUDE - FT

				0	5000	10000	15000	20000
12000	156	TORQUE FUEL CONSUMPTION	% kg/h	69 340	74 331	80 331	-	-
11500	152	TORQUE FUEL CONSUMPTION	% kg/h	65 328	70 317	75 315	81 323	-
11000	149	TORQUE FUEL CONSUMPTION	% kg/h	61 316	65 304	70 299	76 304	-
10500	146	TORQUE FUEL CONSUMPTION	% kg/h	57 305	61 291	66 285	71 287	-
10000	143	TORQUE FUEL CONSUMPTION	% kg/h	53 294	57 280	61 272	66 272	-
9500	140	TORQUE FUEL CONSUMPTION	% kg/h	49 284	53 268	57 259	62 257	67 264
9000	137	TORQUE FUEL CONSUMPTION	% kg/h	46 274	49 257	53 246	57 243	62 246
8500	134	TORQUE FUEL CONSUMPTION	% kg/h	42 265	45 246	49 234	53 229	57 231
8000	130	TORQUE FUEL CONSUMPTION	% kg/h	39 255	42 236	45 223	48 216	52 215

NOTE: - Increase fuel flow 5 kg/h/engine for each 10°C above standard temperature.
 - Decrease fuel flow 5 kg/h/engine for each 10°C below standard temperature.
 - Torque value remains constant, regardless of the temperature change.

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