2. NORMAL CLIMB TABLE, based on 290 kt IAS/M 0.72

NORMAL CLIMB								based on: 290 kt IAS/M 0.72														
TAKE-OFF WEIGHT (t)		70			65			60			55			50			45			40		
FL	TEMP DEV FROM STD (°C)	Time Min	Fuel kg	Dist NM	Time Min	Fuel kg	Dist NM	Time Min	Fuel kg	Dist NM	Time Min	Fuel kg	Dist NM	Time Min	Fuel kg	Dist NM	Time Min	Fuel kg	Dist NM	Time Min	Fuel kg	Dist NM
370	+10										34	2425	222	27	1960	171	22	1635	138	18	1370	113
	0										26	2010	163	21	1685	132	18	1425	109	15	1210	91
350	+10							37	2700	238	29	2180	184	24	1815	148	20	1530	123	17	1295	102
	0							28	2205	172	23	1845	139	19	1575	116	16	1345	97	14	1145	82
330	+10				40	3010	259	31	2415	199	26	2010	160	21	1700	132	18	1445	110	15	1225	92
	0				30	2400	181	24	2015	147	20	1720	123	17	1480	103	15	1270	88	13	1085	74
310	+10	44	3350	281	34	2665	212	28	2210	170	23	1865	141	19	1590	117	16	1360	99	14	1160	83
	0	31	2600	189	26	2180	154	22	1865	128	18	1605	109	16	1390	93	14	1200	79	12	1030	67
290	+10	37	2940	228	30	2415	181	24	2035	148	21	1735	124	18	1485	104	15	1275	88	13	1095	75
	0	27	2350	160	23	2010	133	20	1735	113	17	1505	97	14	1305	83	13	1130	71	11	975	60
280	+10	34	2785	209	28	2305	168	23	1955	139	20	1670	116	17	1435	98	14	1235	83	12	1060	71
	0	26	2250	148	22	1930	125	19	1675	106	16	1455	91	14	1265	78	12	1095	67	10	945	57
270	+10	31	2625	190	26	2195	155	22	1870	129	18	1605	109	16	1385	92	14	1195	78	12	1025	67
	0	24	2145	136	20	1850	116	18	1610	99	15	1405	86	13	1225	74	11	1065	63	10	920	54
260	+10	29	2445	170	24	2065	139	20	1770	117	17	1525	100	15	1320	85	13	1140	72	11	980	61
	0	22	2030	124	19	1760	106	16	1535	91	14	1340	79	12	1170	68	11	1020	59	9	880	50
250	+10	26	2265	149	22	1930	124	18	1665	106	16	1445	90	14	1255	78	12	1085	66	10	935	56
	0	20	1910	112	18	1665	96	15	1460	83	13	1280	72	12	1120	63	10	975	54	9	845	46
240	+10	24	2120	133	20	1815	112	17	1575	96	15	1370	83	13	1190	71	11	1035	61	10	895	52
	0	19	1810	102	16	1580	88	14	1390	77	13	1220	67	11	1070	58	10	935	50	8	810	43
230	+10	21	1970	117	18	1700	100	16	1485	87	14	1295	75	12	1130	64	10	985	56	9	855	48
	0	17	1705	92	15	1500	80	13	1320	70	12	1165	61	10	1020	53	9	895	46	8	775	40
220	+10	20	1850	106	17	1605	91	15	1405	79	13	1230	68	11	1075	59	10	940	51	8	815	44
	0	16	1620	84	14	1425	73	13	1260	64	11	1110	56	10	975	49	8	855	43	7	740	37
210	+10	18	1730	95	16	1510	82	14	1330	71	12	1165	62	10	1020	54	9	890	47	8	775	40
	0	15	1530	75	13	1350	67	12	1195	59	10	1060	52	9	930	45	8	815	39	7	710	34
200	+10	17	1630	86	15	1430	75	13	1260	65	11	1105	57	10	970	49	8	850	43	7	740	37
	0	14	1450	70	12	1285	62	11	1140	54	10	1010	48	8	890	42	7	780	36	6	680	32
190	+10	15	1530	77	14	1345	67	12	1190	59	10	1050	52	9	920	45	8	805	39	7	705	34
	0	13	1370	64	12	1220	57	10	1085	50	9	960	44	8	850	38	7	745	33	6	650	29
180	+10	14	1445	70	13	1270	61	11	1125	54	10	995	47	8	875	41	7	770	36	6	670	31
	0	12	1300	59	11	1160	52	10	1030	46	9	915	40	7	810	35	7	710	31	6	620	27
170	+10	13	1360	63	12	1200	56	10	1065	49	9	940	43	8	830	38	7	730	33	6	635	28
	0	11	1230	53	10	1100	47	9	980	42	8	870	37	7	770	32	6	675	28	5	590	24
160	+10	12	1285	58	11	1135	51	9	1010	45	8	890	39	7	785	34	6	690	30	6	605	26
	0	11	1165	49	9	1040	43	8	930	38	7	825	34	7	730	30	6	640	26	5	560	22
150	+10	11	1205	52	10	1070	46	9	955	41	8	845	36	7	745	31	6	655	27	5	570	24
	0	10	1100	44	9	985	39	8	880	35	7	780	31	6	695	27	5	610	24	5	535	20
140	+10	11	1135	47	9	1010	42	8	900	37	7	795	33	6	705	28	6	620	25	5	540	21
	0	9	1040	40	8	930	36	7	830	32	7	740	28	6	655	25	5	580	22	4	505	19
130	+10	10	1065	42	9	950	38	8	845	33	7	750	30	6	660	26	5	585	23	5	510	19
	0	8	980	36	8	880	33	7	785	29	6	700	26	5	620	23	5	545	20	4	480	17
120	+10	9	1000	38	8	890	34	7	795	30	6	705	27	6	625	23	5	550	20	4	480	18
	0	8	925	33	7	830	30	6	740	26	6	660	23	5	585	21	4	515	18	4	450	16
0	+10	8	935	34	7	830	30	7	745	27	6	660	24	5	585	21	4	515	18	4	450	16
	0	7	865	30	6	775	27	6	695	23	5	620	21	5	550	18	4	485	16	4	425	14
100	+10	8	875	31	7	750	26	6	670	23	5	595	20	5	530	18	4	465	16	3	410	13
	0	7	810	26	6	700	23	5	630	20	5	560	18	4	500	16	4	440	14	3	385	12
90	+10	6	750	24	6	665	21	5	595	19	4	530	17	4	470	15	3	415	13	3	365	11
	0	6	700	21	5	625	19	4	560	17	4	500	15	4	445	13	3	395	12	3	345	10
80	+10	6	690	22	6	615	19	5	550	17	4	490	15	4	435	13	3	385	11	3	340	10
	0	6	650	18	5	580	17	4	520	15	4	465	13	3	415	12	3	365	10	3	320	9
70	+10	5	630	19	5	565	17	4	505	15	4	450	13	3	400	11	3	355	10	3	315	9
	0	5	595	15	4	535	15	4	480	13	3	430	12	3	385	10	3	340	9	2	295	8
60	+10	5	575	16	5	515	14	4	460	13	3	410	11	3	365	10	3	325	9	2	285	8
	0	5	545	14	4	490	13	3	440	11	3	390	10	3	355	9	2	310	8	2	270	7
50	+10	4	515	13	4	460	12	3	415	11	3	370	10	3	330	9	2	295	8	2	260	6
	0	4	495	12	3	440	11	3	395	10	3	355	9	2	325	8	2	280	7	2	250	6

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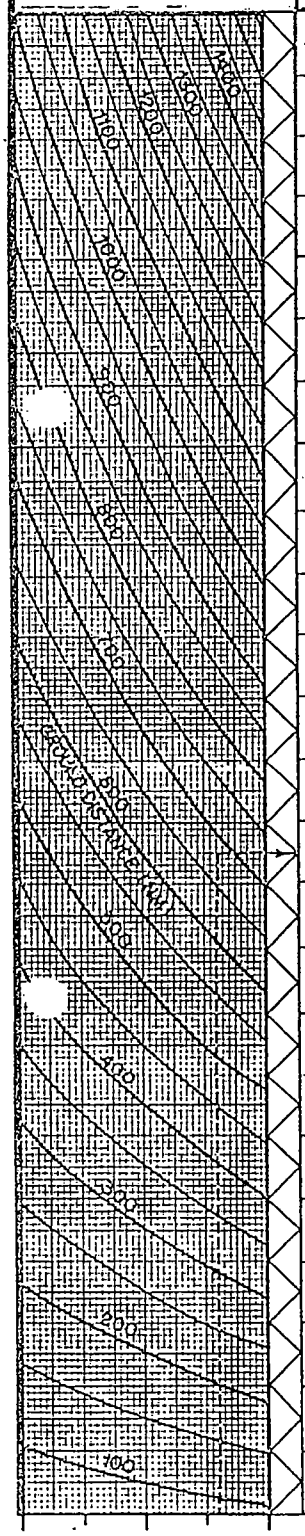
1.2. Trip fuel and time for cruise (cont'd).

NORMAL CRUISE

LRC / 290 kt IAS — TRIP FUEL, TIME



TRIP FUEL in kg
TIME in hr:min

ESAD	FLIGHT LEVEL 100	150	200	250	270	290	310	330	350	370	Fuel corr. (kg) FL 100 to FL 250	Fuel corr. (kg) FL 270 to FL370
1250					9650 3:03	9390 2:59	9160 2:58	9030 2:58	8880 2:59	8740 3:01		
1200					9280 2:56	9030 2:53	8810 2:52	8690 2:51	8540 2:53	8410 2:54		
1150					8910 2:49	8680 2:46	8460 2:45	8340 2:44	8200 2:46	8070 2:47		±130
1100				8840 2:47	8540 2:42	8320 2:39	8110 2:38	8000 2:38	7860 2:39	7730 2:40		
1050				8460 2:40	8170 2:35	7960 2:32	7760 2:31	7660 2:31	7520 2:32	7400 2:33		
1000				8070 2:33	7800 2:28	7600 2:25	7410 2:24	7310 2:24	7180 2:25	7060 2:26		
950				7690 2:25	7430 2:21	7250 2:19	7070 2:18	6980 2:17	6850 2:19	6740 2:19	+ 65 - 60	+105 -100
900			7830 2:26	7310 2:16	7060 2:14	6900 2:12	6730 2:11	6640 2:11	6520 2:12	6420 2:13		
850			7420 2:18	6930 2:11	6700 2:07	6550 2:05	6390 2:04	6310 2:04	6190 2:05	6090 2:06		
800		7580 2:19	7000 2:10	6550 2:04	6330 2:00	6190 1:58	6050 1:57	5970 1:57	5860 1:58	5760 1:59		
750		7130 2:11	6590 2:02	6170 1:57	5970 1:53	5850 1:51	5710 1:51	5640 1:50	5540 1:51	5450 1:52		
700	7280 2:11	6670 2:02	6180 1:55	5790 1:49	5600 1:46	5490 1:44	5370 1:44	5310 1:44	5210 1:44	5130 1:45		+ 90 - 70
650	6770 2:02	6210 1:54	5760 1:47	5410 1:42	5240 1:39	5150 1:38	5030 1:37	4980 1:37	4890 1:38	4790 1:38		
600	6270 1:53	5760 1:45	5350 1:39	5030 1:35	4880 1:32	4800 1:31	4700 1:30	4650 1:30	4560 1:31	4460 1:31	+ 60 - 40	
550	5770 1:44	5310 1:37	4950 1:31	4660 1:28	4520 1:25	4460 1:24	4360 1:23	4320 1:23	4250 1:24	4140 1:25		
500	5270 1:35	4860 1:29	4540 1:24	4290 1:21	4160 1:18	4110 1:17	4030 1:17	4000 1:17	3930 1:17	3840 1:18		
450	4780 1:26	4410 1:20	4140 1:16	3910 1:14	3810 1:12	3770 1:10	3700 1:10	3670 1:10				
400	4290 1:15	3970 1:12	3730 1:08	3540 1:06	3450 1:05	3420 1:04	3360 1:03	3350 1:03				+ 60 - 50
350	3800 1:08	3520 1:03	3300 1:00	3170 :59	3100 :58	3080 :57	3030 :56				+ 40 - 30	
300	3300 :59	3070 :55	2900 :53	2800 :52	2750 :51	2730 :50	2700 :50					
250	2810 :50	2630 :48	2500 :46	2440 :45								
200	2310 :41	2180 :39	2120 :38	2070 :38								
150	1830 :32	1740 :30	1720 :29								+ 30 - 20	
100	1350 :23	1310 :23	1320 :22									

CORRECTION: For each 1 t ABOVE/BELOW 56 t landing weight ADD/SUBTRACT "Fuel correction"

EXAMPLE: Ground distance 680
Tailwind component +60 kt
FL 270

FIND: Trip fuel 4880 kg
Time 1:32 hr:min

GR-F07 OP

(cont'd)

The following Temporary Instruction is in addition to that which is published in the Original Instruction under para 1.2.

(N) 1.5. M 0.78 cruise

M 0.78 CRUISE										M 0.78/330KTS IAS CRUISE STD-Temp.					
FL	M/IAS TAS		GROSS WEIGHT (t)												
			64	62	60	58	56	54	52	50	48	46	44	42	40
370	.780/253 448	EPR FF								1.87 1260	1.85 1220	1.82 1180	1.80 1150	1.77 1130	1.75 1100
350	.780/264 450	EPR FF					1.89 1400	1.86 1370	1.84 1330	1.81 1300	1.79 1270	1.77 1240	1.75 1220	1.73 1190	1.72 1170
330	.780/277 454	EPR FF		1.89 1570	1.87 1530	1.85 1490	1.82 1450	1.80 1420	1.79 1400	1.77 1370	1.75 1340	1.73 1320	1.72 1290	1.70 1270	1.69 1250
310	.780/289 457	EPR FF	1.85 1650	1.83 1620	1.81 1590	1.79 1560	1.78 1530	1.76 1500	1.74 1480	1.73 1450	1.71 1430	1.70 1400	1.69 1380	1.67 1360	1.66 1340
290	.780/302 462	EPR FF	1.80 1730	1.78 1700	1.77 1670	1.75 1640	1.74 1620	1.72 1590	1.71 1570	1.70 1550	1.69 1520	1.67 1500	1.66 1480	1.65 1470	1.64 1450
280	.780/309 464	EPR FF	1.78 1770	1.76 1750	1.75 1720	1.74 1690	1.72 1670	1.71 1650	1.70 1620	1.69 1600	1.68 1580	1.66 1560	1.65 1540	1.65 1520	1.64 1510
270	.780/315 466	EPR FF	1.76 1820	1.74 1790	1.73 1770	1.72 1740	1.71 1720	1.69 1700	1.68 1680	1.67 1650	1.66 1640	1.65 1620	1.65 1600	1.64 1580	1.63 1570
260	.780/322 468	EPR FF	1.74 1870	1.73 1850	1.72 1820	1.70 1800	1.69 1780	1.68 1760	1.67 1740	1.66 1720	1.65 1700	1.65 1680	1.64 1660	1.63 1650	1.62 1630
250	.780/329 470	EPR FF	1.72 1930	1.71 1900	1.70 1880	1.69 1860	1.68 1840	1.67 1820	1.66 1800	1.65 1780	1.65 1760	1.64 1740	1.63 1730	1.62 1710	1.62 1700
240	.769/330 465	EPR FF	1.69 1920	1.68 1900	1.67 1880	1.66 1860	1.65 1840	1.64 1820	1.63 1800	1.62 1790	1.62 1770	1.61 1750	1.60 1730	1.60 1720	1.59 1690
230	.754/330 458	EPR FF	1.65 1910	1.64 1890	1.64 1870	1.63 1850	1.62 1830	1.61 1810	1.60 1800	1.60 1780	1.59 1770	1.58 1750	1.58 1730	1.57 1710	1.57 1690
220	.740/330 451	EPR FF	1.63 1900	1.62 1880	1.61 1860	1.60 1840	1.60 1820	1.59 1800	1.58 1790	1.57 1770	1.57 1760	1.56 1740	1.56 1720	1.55 1710	1.54 1680
210	.726/330 444	EPR FF	1.60 1890	1.59 1870	1.59 1850	1.58 1830	1.57 1810	1.57 1800	1.56 1780	1.55 1760	1.55 1750	1.54 1730	1.53 1720	1.53 1710	1.52 1680
200	.713/330 438	EPR FF	1.58 1890	1.57 1870	1.57 1860	1.56 1840	1.55 1820	1.55 1800	1.54 1790	1.53 1770	1.53 1760	1.52 1740	1.51 1730	1.51 1720	1.50 1690
190	.700/300 432	EPR FF	1.56 1900	1.56 1880	1.55 1860	1.54 1840	1.53 1830	1.53 1810	1.52 1800	1.51 1780	1.51 1760	1.50 1750	1.50 1740	1.49 1730	1.49 1700
180	.687/330 425	EPR FF	1.54 1900	1.54 1880	1.53 1860	1.52 1850	1.52 1830	1.51 1810	1.50 1800	1.50 1780	1.49 1770	1.49 1760	1.48 1740	1.48 1730	1.47 1700
170	.674/330 419	EPR FF	1.52 1910	1.52 1890	1.51 1870	1.50 1850	1.50 1840	1.49 1820	1.49 1810	1.48 1790	1.47 1780	1.47 1760	1.46 1750	1.46 1740	1.45 1710
160	.662/330 413	EPR FF	1.50 1910	1.50 1890	1.49 1880	1.49 1860	1.48 1840	1.47 1830	1.47 1810	1.46 1800	1.46 1790	1.45 1770	1.45 1760	1.44 1750	1.44 1720
150	.650/330 407	EPR FF	1.48 1920	1.48 1900	1.47 1880	1.47 1870	1.46 1850	1.46 1840	1.45 1820	1.44 1810	1.44 1790	1.43 1780	1.43 1770	1.42 1760	1.42 1730
140	.638/330 401	EPR FF	1.47 1920	1.46 1910	1.46 1890	1.45 1880	1.44 1860	1.44 1850	1.43 1830	1.43 1820	1.42 1800	1.42 1790	1.41 1780	1.41 1770	1.40 1740
130	.627/330 396	EPR FF	1.45 1940	1.44 1920	1.44 1910	1.43 1890	1.43 1870	1.42 1860	1.42 1840	1.41 1830	1.41 1820	1.40 1800	1.40 1790	1.39 1780	1.39 1750
120	.616/330 390	EPR FF	1.43 1950	1.43 1930	1.42 1920	1.42 1900	1.41 1880	1.41 1870	1.40 1850	1.40 1840	1.39 1830	1.39 1810	1.38 1800	1.38 1790	1.38 1760
110	.605/330 385	EPR FF	1.41 1970	1.41 1950	1.40 1930	1.40 1910	1.39 1900	1.39 1880	1.38 1870	1.38 1850	1.37 1840	1.37 1830	1.37 1810	1.37 1800	1.36 1770
100	.594/330 379	EPR FF	1.40 1980	1.39 1960	1.39 1940	1.38 1930	1.38 1910	1.37 1890	1.37 1880	1.37 1870	1.36 1850	1.36 1840	1.35 1820	1.35 1810	1.35 1780

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1.3. Alternate fuel and time

The table below can be used to determine alternate fuel for preflight and inflight planning. Use linear interpolation for distances between the given steps.

CONDITIONS:
- Long range cruise
- Gross weight 56 t
- Wind component 30 kt headwind
- FL as given
- Temperature STD.
- (N) Correction for start of diversion > SL: reduce Alternate fuel by 10 kg / 1000 ft.

The data below include time and fuel for missed approach, climb, cruise, descent, approach and landing.

(N) **ALTERNATE FUEL, TIME**

GROUND DISTANCE NM	FL	ALTERNATE FUEL (kg) Comp: -30 kt Weight: 56 t	FUEL CORRECTIONS kg for wind comp ± 20 kt	FUEL CORRECTIONS kg for weight ± 2 t	TIME (Hr:Min)
50	100	720	40	10	:14
100		1240	70	20	:24
150		1750	100	30	:34
150	200	1570	70	40	:30
200		1980	100	50	:39
250		2390	120	60	:48
250	300	2210	80	50	:42
300		2550	100	60	:50
350		2890	120	70	:57
400		3220	130	70	1:05
450		3550	150	80	1:12
500		3890	170	90	1:20
550		4220	180	100	1:28
600		4540	200	100	1:35
-50		4870			

1.4. Route reserve fuel (RR)

The quantity of fuel to cover unforeseeable deviations from the "Planned Operating Conditions".

Standard amount of Route Reserve
Fuel = 1100 kg.

1.5. Final Reserve fuel

The quantity of fuel to cover:
- Fuel for missed approach and approach.
- Fuel for uncertainty of fuel indication(s).

NOTE: This quantity of fuel corresponds to 30 minutes flight time with holding speed, at 1500 ft above SL and at a specific weight.

Standard amount of final reserve fuel

Fuel = 1400 kg.

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