

WB-A03a

ATPL Workbook

Subject:

- ATPL Flight Planning (Aeroplane) - Boeing 777-300ER

IMPORTANT NOTE

This version of the workbook is for training purposes.

An examination version will be provided at the examination centre at the time of your sitting.

Revision - Candidate Training Copy (2019)a



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INTRODUCTION

The flight planning data in this Data Booklet is based on the Boeing 777-300ER as operated by a typical international airline. Consequently there will definitely be differences between this material and the flight and fuel planning policies and data requirements of the aircraft type that you are either presently operating or may operate in the future.

Therefore you must always refer to the appropriate Operations/Performance/Training Manual (whatever it is called) and/or Aircraft Flight Manual (AFM) for your aircraft type, in your operating environment.

The data in this booklet is NOT to be used in actual flight planning!



DEFINITIONS

The hierarchy of sources for the following definitions is:

CAR Part 1;

Boeing Flight Crew Operations Manual for the 777-300ER; and,

Jeppesen documentation.

A-B Fuel	The fuel required, calculated from the start of the takeoff roll at the departure airfield through climb, cruise and descent to arrival at 1,500 feet over the destination airfield.
Approach and Landing Fuel	The fuel required for visual flight from 1,500 feet over the alternate airfield to the completion of the landing run.
Burn Off	Shall consist of the sum of A-B fuel, plus fuel for an instrument approach at destination, plus departure and arrival allowances, if applicable.
Contingency Fuel (CAR Pt 1)	A fuel provision for any of the following: (1) en-route winds or temperatures being different from forecast; (2) any deviation from the flight planned routes, altitudes or flight levels or, (3) variations from optimum operating techniques.
Contingency Reserves	A percentage fuel allowance to provide a reserve for inflight contingencies including meteorological, navigation errors and operational restrictions.
Critical Equi-Time Point	This is the equi-time point for the most critical sector of the route to be flown when the particular emergency and distribution of available airfields along the route are taken into consideration. Critical fuel scenarios have been determined and loaded into the Dispatch Manager flight planning computer for various aircraft types and will default to the worst case, which is dependent on aircraft weight and diversion time. The two options are ETPD (2 Eng Depressurised) and ETP1D (1 Eng depressurised).
Critical Equi-Fuel Point	While the critical fuel scenarios on the Computer Flight Plan (CFP) labels the critical points "Equi-Time" points, the Dispatch Manager flight planning computer actually calculates these points as "Equi-Fuel" points.
Departure and Arrival Allowances	The fuel required, when necessary, to cover circuitous routing during departure and/or arrival. Where a departure and/or arrival allowance has been included in the Computer Flight Plan (CFP), this allowance will be added into the first and/or last zone FUELRQ figure. To show that the allowance has been included a D (for Departure) and/or an A (for Arrival) is printed adjacent to the applicable zone FUELRQ figure. The amount of the allowance will be also shown in the fuel analysis block.
Diversion Decision Point (DDP)	This is a designated point on a route to which a flight may operate with reduced specific aircraft contingency. Each DDP is associated with an enroute re-fuelling airfield. A DDP plan is used solely for payload enhancement by allowing a portion of the A-B contingency fuel to be exchanged for the equivalent weight of payload, but only under specific conditions.

Diversion Fuel (B-C Fuel)	The fuel required for diversion from the minimum altitude on final approach to the destination airfield through the missed approach procedure to 1,500 feet, climb, cruise and descent to arrival at 1,500 feet over the alternate airfield.
ECL P/N	Electronic Checklist Part Number. The Boeing 777 has a dual database feature which provides the flight crew with the capability of activating either of two different Electronic Checklist (ECL) databases, each having a different database part number and revision identification.
Final Reserve Fuel	The fuel required to fly for 30 minutes at holding speed at 1,500 feet above the destination or destination alternate aerodrome airfield (excluding any additional fuel for holding in a racetrack pattern). This reserve is the minimum quantity of fuel required to provide a margin to secure the safe completion of the flight under normal conditions of operation in the event of any unplanned manoeuvring in the vicinity of the destination or destination alternate aerodrome. In ordinary circumstances this fuel remains on board until completion of the landing.
Fixed Fuel Reserve	Has exactly the same meaning as "Final Reserve Fuel".
Instrument Approach and Missed Approach Fuel	The fuel required as part of the ETP critical fuel scenario for single engine flight from 1,500 feet over the airfield to completion of the missed approach.
Instrument Approach Fuel	The fuel required for flight from 1,500 feet over the destination airfield through the planned instrument approach to the minimum altitude on final approach at the destination airfield.
Performance Deterioration Allowance (CAR Pt 1)	The difference between the aeroplane manufacturer's published fuel consumption figures and the actual fuel consumption applicable to a specific aeroplane.
Performance Deterioration Allowance	A specific percentage fuel allowance to provide for the deterioration of that aircraft performance from standard book figures. This allowance shall be applied to ALL facets of the fuel calculation and shall be included in the individual fuel figures and not as a separate percentage.
Point of No Return (PNR)	The point in the flight of an aircraft beyond which the remaining fuel will be insufficient for a return to the departure airfield.
Point of No Return Factor	The PNR Factor is the amount of fuel required to fly 1nm beyond the ETPD at altitude, plus the fuel required to fly 1nm back to the ETPD at 10,000 feet. The PNR Factor for the B777-300ER is 37kg/nm.
Point of Safe Return (PSR)	The point in the flight of an aircraft beyond which the remaining fuel will be insufficient for a safe return to the departure airfield with appropriate reserve fuel.
Revised (Inflight) PSR	An inflight point of safe return may be calculated using fuel in excess of ETPD requirements, by using a number referred to as the Point of No Return (PNR) Factor.

USE OF FLIGHT PLANNING DATA

Unless otherwise stated, the specification aircraft referred to in the examination questions is the Boeing 777-300ER, and the following weights apply:

Maximum ramp weight	352,441kg
Maximum takeoff weight	351,534kg
Maximum landing weight	251,290kg
Maximum zero fuel weight	237,682kg
Maximum taxi weight	352,441kg
Prepared for service weight	174,600kg
Basic weight	170,000kg
Maximum fuel load	145,500kg
Taxi fuel	510kg

- Notes:
- 1) Takeoff weight is the same as the Brake Release Weight (BRW).
 - 2) Prepared for service weight is the same as operating empty weight.
 - 3) Basic weight is the same as empty weight.
 - 4) For all HKG, LAX and LHR departures standard taxi fuel will be 720kg.



FUEL POLICY

Normal Operation

Flight from A to B when an alternate (C) is required.

The **aircraft must not takeoff** with less than the sum of the following fuel components:

- 1) **Trip fuel A to B**, fuel required from the start of the take-off roll to 1,500 feet overhead the destination aerodrome.
- 2) **Contingency fuel, 2%** of the trip fuel A to B.
- 3) **Full instrument approach and landing fuel**, from 1,500 feet overhead destination to minimum altitude on approach, **1080kg** (12 min approach configuration).
- 4) **Diversion fuel B to C**, from minimum altitude on final approach to 1,500 feet overhead the alternate aerodrome.
- 5) **Circuit and landing fuel**, from 1,500 feet overhead the alternate aerodrome to the completion of the landing run, **540kg**.
- 6) Alternate reserve fuel, **30 min holding at 1,500 feet** overhead the alternate aerodrome.
- 7) Performance Deterioration Allowance (**PDA**), a specified percentage fuel to provide for the deterioration of that aircraft performance from standard book figures. To be applied to ALL components.
- 8) Any **extra fuel to cover enroute ETP** requirements, as listed below.

Flight from A to B when an alternate (C) is NOT required.

The **aircraft must not takeoff** with less than the sum of the following fuel components:

- 1) **Trip fuel A to B**, fuel required from the start of the take-off roll to 1,500 feet overhead the destination aerodrome.
- 2) **Contingency fuel, 2%** of the trip fuel A to B.
- 3) **Full instrument approach and landing fuel**, from 1,500 feet overhead destination to minimum altitude on approach, **1080kg** (12 min approach configuration).
- 4) Destination reserve fuel, **30 min holding at 1,500 feet** overhead the destination aerodrome.
- 5) Extra holding fuel to ensure that a minimum of **60 minutes holding fuel at 1,500 feet** is available on arrival at the destination.
- 6) Performance Deterioration Allowance (**PDA**), a specified percentage fuel to provide for the deterioration of that aircraft performance from standard book figures. To be applied to ALL components.
- 7) Any **extra fuel to cover enroute ETP** requirements, as listed below.



Preflight (Taxi) Fuel

A preflight fuel allowance must be added to the Total Fuel Required for the flight to obtain Ramp Fuel. This allowance is normally 510kg, and consists of the following:

APU operation	120kg
Start Up (2 minutes)	60kg
Taxi (10 minutes)	<u>330kg</u>
	510kg

The total preflight fuel is often referred to simply as taxi fuel. Unless otherwise specified, assume that taxi fuel includes start up and APU operation. Any time a long (in excess of 10 minutes) taxi is expected, additional taxi fuel should be calculated at a rate of 33kg per minute. For all LAX, HKG and LHR departures standard taxi fuel will be 720kg.

While strictly the PDA for the aircraft should be added to the preflight/taxi fuel, since it is a fairly conservative estimate of the planning fuel required to cover the use of the APU, the start-up and the taxi, in practice the PDA is not considered.



ETP Fuel Requirements

The aircraft must have at least the sum of the most critical of the following fuel components when reaching the Critical Equi-Time Point:

For a **One Engine Inoperative (OEI) pressurised** diversion (ETP1):

- 1) Fuel to the diversion aerodrome, OEI, **pressurised**, from the ETP;
- 2) 5% wind component adjustment *;
- 3) Diversion reserve fuel, 15 minutes holding at 1,500 feet;
- 4) APU fuel (at 240kg/hr);
- 5) Instrument approach and landing fuel, 1,080kg; and,
- 6) Performance Deterioration Allowance (PDA).

For an **All Engines Operating (AEO) depressurised** diversion (ETPD):

- 1) Fuel to the diversion aerodrome, AEO, **depressurised**, from the ETP;
- 2) 5% wind component adjustment *;
- 3) Diversion reserve fuel, 15 minutes holding at 1,500 feet;
- 4) Instrument approach and landing fuel, 1,080kg;
- 5) Icing fuel. Fuel to allow operation of engine and wing anti-ice systems for 100% of expected exposure time; and,
- 6) Performance Deterioration Allowance (PDA).

For an **One Engine Inoperative (OEI) depressurised** diversion (ETP1D):

- 1) Fuel to the diversion aerodrome, OEI, **depressurised**, from the ETP;
- 2) 5% wind component adjustment *;
- 3) Diversion reserve fuel, 15 minutes holding at 1,500 feet;
- 4) APU fuel (at 240kg/hr);
- 5) Instrument approach and landing fuel, 1,080kg;
- 6) Icing fuel. Fuel to allow operation of engine and wing anti-ice systems for 100% of expected exposure time; and,
- 7) Performance Deterioration Allowance (PDA).

- * The 5% Wind Component Adjustment means an increase of 5% for headwind components and a 5% decrease for tailwind components when calculating the applicable fuel.



DIVERSION - All Engines Operating (AEO)

Long Range Cruise Enroute Fuel and Time

Long Range Cruise Enroute Fuel and Time tables are provided to determine remaining time and fuel required to destination. The data is based on Long Range Cruise and .84/310/250 descent.

Tables are presented for low altitudes for shorter trip distances and high altitudes for longer trip distances.

To determine remaining fuel and time required, first enter the Ground to Air Miles Conversion table to convert ground distance and enroute wind to an equivalent still air distance for use with the Reference Fuel and Time tables. Next, enter the Reference Fuel and Time table with air distance from the Ground to Air Miles Conversion table and the desired altitude and read Reference Fuel and Time Required. Lastly, enter the Fuel Required Adjustment table with the Reference Fuel and the actual weight at checkpoint to obtain fuel required to destination.

Low Altitude

Long Range Cruise Ground to Air Miles Conversion

AIR DISTANCE (NM)					GROUND DISTANCE (NM)	AIR DISTANCE (NM)				
HEADWIND COMPONENT (KTS)						TAILWIND COMPONENT (KTS)				
100	80	60	40	20		20	40	60	80	100
282	261	242	226	213	200	191	182	174	167	160
561	520	484	452	425	400	382	366	351	337	325
840	779	725	678	637	600	574	550	528	508	489
1120	1039	966	904	849	800	766	734	705	678	653
1401	1299	1208	1130	1062	1000	957	918	881	848	817
1683	1560	1451	1357	1274	1200	1149	1101	1057	1017	980
1966	1822	1694	1583	1487	1400	1340	1285	1234	1187	1144
2250	2085	1937	1811	1700	1600	1532	1469	1410	1356	1307
2535	2348	2181	2038	1913	1800	1723	1652	1586	1525	1470
2571	2433	2308	2195	2094	2000	1920	1845	1775	1710	1651

Reference Fuel and Time Required at Check Point

AIR DIST (NM)	PRESSURE ALTITUDE (1000 ft)									
	10		14		20		24		28	
	FUEL (TONNE)	TIME (HR:MIN)	FUEL (TONNE)	TIME (HR:MIN)	FUEL (TONNE)	TIME (HR:MIN)	FUEL (TONNE)	TIME (HR:MIN)	FUEL (TONNE)	TIME (HR:MIN)
200	4.0	0:38	3.5	0:37	2.9	0:35	2.5	0:34	2.3	0:34
400	8.2	1:12	7.5	1:08	6.5	1:04	5.9	1:02	5.5	1:00
600	12.4	1:46	11.4	1:40	10.1	1:33	9.3	1:30	8.7	1:26
800	16.5	2:20	15.4	2:12	13.6	2:02	12.6	1:58	11.9	1:52
1000	20.7	2:55	19.3	2:45	17.2	2:31	15.9	2:26	15.0	2:19
1200	24.7	3:30	23.1	3:17	20.7	3:00	19.2	2:54	18.1	2:45
1400	28.8	4:05	27.0	3:50	24.2	3:30	22.5	3:22	21.2	3:12
1600	32.8	4:41	30.8	4:24	27.6	4:00	25.7	3:50	24.3	3:39
1800	36.8	5:16	34.5	4:57	31.1	4:30	28.9	4:19	27.3	4:06
2000	40.8	5:52	38.3	5:31	34.5	5:00	32.1	4:48	30.3	4:34

Fuel Required Adjustment (TONNE)

REFERENCE FUEL REQUIRED (TONNE)	WEIGHT AT CHECK POINT (TONNE)									
	170	190	210	230	250	270	290	310	330	350
5	-0.6	-0.5	-0.3	-0.2	0.0	0.2	0.4	0.6	0.8	1.0
10	-1.3	-1.0	-0.7	-0.3	0.0	0.4	0.9	1.3	1.8	2.2
15	-2.0	-1.5	-1.0	-0.5	0.0	0.7	1.4	2.1	2.8	3.4
20	-2.7	-2.1	-1.4	-0.7	0.0	1.0	1.9	2.9	3.8	4.7
25	-3.4	-2.6	-1.8	-0.9	0.0	1.2	2.4	3.6	4.8	5.9
30	-4.1	-3.1	-2.1	-1.1	0.0	1.5	3.0	4.4	5.8	7.2
35	-4.8	-3.7	-2.5	-1.2	0.0	1.8	3.5	5.2	6.9	8.5
40	-5.5	-4.2	-2.8	-1.4	0.0	2.1	4.1	6.0	7.9	9.7
45	-6.2	-4.7	-3.2	-1.6	0.0	2.3	4.6	6.8	9.0	11.0

High Altitude

Ground to Air Miles Conversion

AIR DISTANCE (NM)					GROUND DISTANCE (NM)	AIR DISTANCE (NM)				
HEADWIND COMPONENT (KTS)						TAILWIND COMPONENT (KTS)				
100	80	60	40	20		20	40	60	80	100
2571	2433	2308	2195	2094	2000	1920	1845	1775	1710	1651
3088	2922	2771	2635	2513	2400	2304	2214	2131	2053	1982
3606	3412	3235	3076	2932	2800	2688	2583	2486	2396	2313
4126	3904	3699	3517	3352	3200	3072	2953	2842	2739	2645
4649	4396	4165	3959	3772	3600	3456	3322	3197	3082	2976
5172	4890	4631	4400	4192	4000	3840	3691	3552	3424	3307
5697	5384	5098	4843	4612	4400	4224	4060	3908	3767	3637
6223	5880	5565	5285	5033	4800	4608	4429	4263	4109	3967
6751	6376	6034	5729	5453	5200	4992	4798	4617	4450	4297
7281	6874	6503	6172	5874	5600	5375	5166	4971	4791	4626
7812	7373	6973	6616	6295	6000	5759	5534	5324	5131	4954
8345	7874	7444	7061	6716	6400	6142	5901	5678	5471	5282
8880	8376	7915	7506	7138	6800	6525	6269	6030	5811	5610
9418	8880	8388	7952	7560	7200	6908	6636	6383	6150	5936
9959	9385	8863	8399	7982	7600	7291	7002	6735	6488	6262
10502	9893	9338	8846	8405	8000	7674	7369	7086	6826	6587



Reference Fuel and Time required at Check Point

AIR DIST (NM)	PRESSURE ALTITUDE (1000 ft)									
	29		31		33		35		37	
	FUEL (TONNE)	TIME (HR:MIN)	FUEL (TONNE)	TIME (HR:MIN)	FUEL (TONNE)	TIME (HR:MIN)	FUEL (TONNE)	TIME (HR:MIN)	FUEL (TONNE)	TIME (HR:MIN)
800	11.8	1:50	11.4	1:48	11.0	1:47	10.7	1:47	10.7	1:48
1200	17.8	2:43	17.3	2:40	16.8	2:37	16.4	2:37	16.2	2:38
1600	23.9	3:36	23.2	3:31	22.6	3:28	22.0	3:27	21.7	3:27
2000	29.9	4:30	29.1	4:22	28.4	4:18	27.6	4:17	27.2	4:17
2400	35.7	5:24	34.8	5:15	33.9	5:09	33.0	5:07	32.5	5:07
2800	41.5	6:19	40.5	6:08	39.5	6:00	38.4	5:57	37.8	5:57
3200	47.2	7:15	46.0	7:02	44.9	6:52	43.8	6:48	43.0	6:47
3600	52.8	8:11	51.5	7:56	50.2	7:45	49.0	7:39	48.1	7:37
4000	58.4	9:07	56.9	8:51	55.6	8:37	54.2	8:30	53.2	8:27
4400	63.7	10:05	62.2	9:47	60.7	9:32	59.2	9:22	58.0	9:18
4800	69.1	11:02	67.4	10:43	65.8	10:26	64.2	10:15	62.9	10:09
5200	74.3	12:00	72.5	11:40	70.8	11:21	69.1	11:08	67.7	11:00
5600	79.5	12:59	77.5	12:37	75.7	12:17	73.9	12:01	72.4	11:52
6000	84.7	13:58	82.5	13:35	80.6	13:13	78.7	12:55	77.1	12:44
6400	89.7	14:59	87.4	14:34	85.3	14:10	83.3	13:51	81.6	13:37
6800	94.6	15:59	92.2	15:33	90.0	15:07	87.9	14:46	86.1	14:30
7200	99.5	17:01	97.0	16:32	94.7	16:06	92.4	15:42	90.5	15:24
7600	104.3	18:04	101.6	17:33	99.2	17:04	96.8	16:40	94.8	16:19
8000	109.2	19:07	106.3	18:33	103.7	18:03	101.2	17:37	99.1	17:14

Fuel Required Adjustment (TONNE)

REFERENCE FUEL REQUIRED (TONNE)	WEIGHT AT CHECK POINT (TONNE)									
	170	190	210	230	250	270	290	310	330	350
10	-1.8	-1.3	-0.8	-0.4	0.0	0.7	2.4	4.9	8.4	12.7
20	-3.6	-2.8	-1.9	-0.9	0.0	1.4	4.0	7.7	12.5	18.5
30	-5.5	-4.3	-2.9	-1.5	0.0	2.1	5.5	10.2	16.3	23.7
40	-7.3	-5.7	-3.9	-2.0	0.0	2.7	6.9	12.5	19.7	28.3
50	-9.1	-7.1	-4.9	-2.5	0.0	3.3	8.2	14.6	22.7	32.3
60	-10.9	-8.5	-5.8	-2.9	0.0	3.9	9.4	16.5	25.3	35.7
70	-12.6	-9.8	-6.7	-3.4	0.0	4.4	10.5	18.2	27.5	38.6
80	-14.3	-11.0	-7.5	-3.8	0.0	4.9	11.4	19.6	29.4	40.8
90	-15.9	-12.2	-8.3	-4.2	0.0	5.4	12.3	20.8	30.9	42.5
100	-17.6	-13.3	-9.0	-4.6	0.0	5.8	13.1	21.8	32.0	43.6
110	-19.2	-14.4	-9.7	-5.0	0.0	6.3	13.8	22.6	32.7	44.1
120	-20.8	-15.4	-10.4	-5.3	0.0	6.7	14.4	23.2	33.1	44.0

DIVERSION - One Engine Inoperative (OEI)

Driftdown/Long Range Cruise Range Capability

This table shows the range capability from the start of driftdown. Driftdown is continued to level off altitude. As weight decreases due to fuel burn, the airplane is accelerated to long range cruise speed. Cruise is continued at level off altitude and long range cruise speed.

To determine fuel required, enter the Ground to Air Miles Conversion table with the desired ground distance and correct for anticipated winds to obtain air distance to destination. Then enter the Driftdown/Cruise Fuel and Time table with air distance and weight at start of driftdown to determine fuel and time required. If altitudes other than the level off altitude is used, fuel and time required may be obtained by using the Engine Inoperative Long Range Cruise Diversion Fuel and Time table.

ENGINE INOP

MAX CONTINUOUS THRUST

Ground to Air Miles Conversion

AIR DISTANCE (NM) INCLUDES 5% WIND ADJUSTMENT					GROUND DISTANCE (NM)	AIR DISTANCE (NM) INCLUDES 5% WIND ADJUSTMENT				
HEADWIND COMPONENT (KTS)						TAILWIND COMPONENT (KTS)				
100	80	60	40	20		20	40	60	80	100
136	128	119	112	105	100	95	90	87	83	80
274	254	238	223	211	200	190	182	174	166	161
410	382	357	336	317	300	286	273	262	250	240
545	508	476	448	422	400	381	364	348	335	321
682	635	594	559	527	500	476	455	436	419	402
817	762	713	671	634	600	572	547	523	502	483
952	888	831	782	739	700	668	638	611	587	564
1086	1014	950	894	844	800	763	729	700	671	645
1221	1140	1068	1006	949	900	858	821	787	755	726
1356	1266	1186	1117	1055	1000	954	912	875	840	807
1491	1391	1304	1229	1160	1100	1050	1005	962	924	889
1625	1518	1424	1339	1265	1200	1145	1096	1050	1008	970
1760	1643	1542	1451	1372	1300	1241	1187	1138	1093	1051
1894	1769	1660	1563	1477	1400	1336	1279	1226	1177	1132
2030	1896	1778	1674	1582	1500	1431	1370	1314	1261	1213
2165	2022	1897	1786	1687	1600	1528	1462	1401	1345	1294
2300	2148	2015	1897	1793	1700	1623	1553	1489	1430	1375
2435	2274	2134	2009	1899	1800	1718	1644	1576	1514	1456



ENGINE INOP**MAX CONTINUOUS THRUST****Driftdown / Cruise Fuel and Time**

AIR DIST (NM)	FUEL REQUIRED (1000 kg)											TIME (HR:MIN)
	WEIGHT AT START OF DRIFTDOWN (TONNE)											
	160	180	200	220	240	260	280	300	320	340	360	
100	1.1	1.1	1.2	1.3	1.5	1.6	1.7	1.8	1.8	1.9	2.0	0:16
200	2.4	2.5	2.8	3.1	3.3	3.5	3.7	3.9	4.1	4.3	4.6	0:31
300	3.7	4.1	4.5	4.9	5.3	5.6	6.0	6.3	6.6	7.0	7.4	0:46
400	5.1	5.6	6.2	6.8	7.3	7.8	8.2	8.7	9.2	9.7	10.3	1:01
500	6.4	7.0	7.8	8.5	9.2	9.8	10.4	11.0	11.6	12.3	13.0	1:16
600	7.7	8.4	9.3	10.1	11.0	11.7	12.5	13.2	13.9	14.8	15.6	1:31
700	8.9	9.8	10.8	11.8	12.8	13.7	14.5	15.4	16.2	17.2	18.2	1:46
800	10.1	11.2	12.3	13.4	14.5	15.6	16.5	17.5	18.5	19.6	20.8	2:01
900	11.3	12.5	13.8	15.1	16.3	17.4	18.5	19.6	20.7	22.0	23.3	2:15
1000	12.6	13.9	15.3	16.7	18.0	19.3	20.5	21.8	23.0	24.4	25.9	2:30
1100	13.8	15.2	16.8	18.3	19.8	21.2	22.5	23.9	25.2	26.8	28.4	2:45
1200	14.9	16.6	18.2	19.9	21.5	23.0	24.5	26.0	27.4	29.2	30.9	2:59
1300	16.1	17.9	19.7	21.5	23.2	24.8	26.4	28.0	29.7	31.5	33.4	3:14
1400	17.3	19.2	21.1	23.0	24.9	26.6	28.4	30.1	31.8	33.8	35.8	3:29
1500	18.5	20.5	22.5	24.6	26.5	28.4	30.3	32.2	34.0	36.1	38.3	3:43
1600	19.6	21.7	23.9	26.1	28.2	30.2	32.2	34.2	36.2	38.4	40.7	3:58
1700	20.8	23.0	25.3	27.6	29.8	32.0	34.1	36.2	38.3	40.7	43.1	4:13
1800	21.9	24.3	26.7	29.1	31.5	33.8	36.0	38.2	40.5	43.0	45.5	4:28

Includes APU fuel burn.

Driftdown at optimum driftdown speed and cruise at LRC speed.



Long Range Cruise Altitude Capability

This table shows the maximum altitude that can be maintained at a given weight and air temperature (ISA deviation), based on LRC speed, Max Continuous thrust, and 100 ft/min residual rate of climb.

ENGINE INOP

MAX CONTINUOUS THRUST

100 ft/min Residual Rate of Climb

WEIGHT (TONNE)	PRESSURE ALTITUDE (ft)		
	ISA+10 Deg C & Below	ISA+15 Deg C	ISA+20 Deg C
360	15,000	13,600	12,000
350	15,500	14,200	12,600
340	16,400	14,900	13,100
330	17,200	15,700	13,900
320	18,100	16,600	14,900
310	19,000	17,500	15,800
300	19,900	18,400	16,700
290	20,600	19,400	17,800
280	21,200	20,200	18,800
270	21,900	20,900	19,900
260	22,800	21,600	20,600
250	23,800	22,500	21,400
240	24,900	23,700	22,100
230	26,200	24,900	23,400
220	27,600	26,300	24,600
210	29,100	27,700	26,000
200	30,400	29,100	27,600
190	31,400	30,500	29,100
180	32,400	31,700	30,600
170	33,400	33,000	32,000
160	34,600	34,400	33,500

With engine anti-ice on, no altitude capability adjustment is required.

With engine and wing anti-ice on, decrease altitude capability by 300 ft.





APU Operation During Flight

For APU operation during flight, increase fuel flow according to the following table. These increments include the APU fuel flow and the effect of increased drag from the APU door.

PRESSURE ALTITUDE (1000 FT)	APU FUEL FLOW PENALTY (kg/hr)				
	GROSS WEIGHT (TONNE)				
	300	260	220	180	140
43				160	140
39			180	160	145
35		200	190	170	140
31	230	220	195	165	140
25	230	220	195	175	155
20	235	230	205	185	165
15	235	235	215	200	185
10	240	240	230	220	200
5	270	270	255	240	220



DIVERSION - One Engine Inoperative (AEO)

Long Range Cruise Diversion Fuel and Time - OEI

Tables are provided for crews to determine the fuel and time required to proceed to an alternate airfield with one engine inoperative. The data is based on single engine Long Range Cruise speed and .84/310/250 descent.

Enter with Air Distance as determined from the Ground to Air Miles Conversion table and read Fuel and Time required at the cruise pressure altitude. Adjust the fuel obtained for deviation from the reference weight at checkpoint as required by entering the off reference fuel corrections table with the fuel required for the reference weight and the actual weight at checkpoint.

Read fuel and time required for the actual weight.

ENGINE INOP

MAX CONTINUOUS THRUST

Ground to Air Miles Conversion

AIR DISTANCE (NM) INCLUDES 5% WIND ADJUSTMENT					GROUND DISTANCE (NM)	AIR DISTANCE (NM) INCLUDES 5% WIND ADJUSTMENT				
HEADWIND COMPONENT (KTS)						TAILWIND COMPONENT (KTS)				
100	80	60	40	20		20	40	60	80	100
292	268	247	229	214	200	190	182	174	167	161
581	533	492	457	426	400	382	366	350	336	323
871	801	738	686	640	600	573	548	525	505	487
1163	1068	985	914	854	800	765	732	702	675	649
1455	1337	1232	1144	1067	1000	956	915	878	843	811
1748	1605	1480	1373	1282	1200	1147	1098	1053	1011	974
2043	1876	1728	1603	1496	1400	1338	1281	1228	1180	1135
2338	2145	1976	1833	1710	1600	1530	1464	1403	1348	1298
2635	2417	2226	2063	1924	1800	1721	1646	1578	1516	1459
2933	2689	2475	2294	2139	2000	1911	1829	1753	1684	1621



Reference Fuel and Time Required at Check Point

AIR DIST (NM)	PRESSURE ALTITUDE (1000 ft)									
	10		14		18		22		26	
	FUEL (TONNE)	TIME (HR:MIN)	FUEL (TONNE)	TIME (HR:MIN)	FUEL (TONNE)	TIME (HR:MIN)	FUEL (TONNE)	TIME (HR:MIN)	FUEL (TONNE)	TIME (HR:MIN)
200	4.0	0:39	3.5	0:38	3.2	0:36	2.8	0:36	2.6	0:35
400	8.4	1:15	7.6	1:11	7.1	1:08	6.7	1:06	6.4	1:03
600	12.7	1:50	11.7	1:45	11.1	1:40	10.4	1:36	10.2	1:32
800	16.9	2:26	15.7	2:19	14.9	2:11	14.2	2:06	13.9	2:02
1000	21.1	3:02	19.7	2:53	18.8	2:44	17.9	2:37	17.6	2:31
1200	25.3	3:38	23.7	3:27	22.6	3:16	21.5	3:07	21.2	3:00
1400	29.4	4:15	27.6	4:02	26.3	3:49	25.1	3:38	24.7	3:30
1600	33.5	4:52	31.4	4:37	30.1	4:21	28.7	4:09	28.2	4:00
1800	37.6	5:29	35.2	5:12	33.8	4:55	32.3	4:40	31.6	4:29
2000	41.6	6:07	39.0	5:47	37.4	5:28	35.8	5:11	35.0	5:00

ENGINE INOP

MAX CONTINUOUS THRUST

Fuel Required Adjustment (TONNE)

REFERENCE FUEL REQUIRED (TONNE)	WEIGHT AT CHECK POINT (TONNE)									
	170	190	210	230	250	270	290	310	330	350
5	-0.8	-0.6	-0.4	-0.2	0.0	0.3	0.7	1.2	1.7	2.3
10	-1.8	-1.3	-0.9	-0.4	0.0	0.8	1.6	2.6	3.7	4.9
15	-2.7	-2.0	-1.3	-0.7	0.0	1.2	2.5	4.0	5.6	7.4
20	-3.7	-2.7	-1.8	-0.9	0.0	1.6	3.3	5.3	7.5	9.8
25	-4.6	-3.4	-2.3	-1.1	0.0	2.0	4.2	6.6	9.3	12.2
30	-5.6	-4.2	-2.7	-1.4	0.0	2.3	4.9	7.8	11.0	14.4
35	-6.5	-4.9	-3.2	-1.6	0.0	2.7	5.7	9.0	12.6	16.6
40	-7.5	-5.6	-3.7	-1.8	0.0	3.1	6.4	10.2	14.2	18.6
45	-8.5	-6.3	-4.2	-2.1	0.0	3.4	7.1	11.3	15.8	20.6

Includes APU fuel burn.



HOLDING - All Engines Operating (AEO)

The table below gives the target %N1, indicated airspeed (KIAS) and fuel flow per engine (FF/ENG) information for holding with flaps up, based on the FMC optimum holding speed schedule. This is the higher of the maximum endurance speed and the maneuvering speed for the selected flap setting. Small variations in airspeed will not appreciably affect the overall endurance time.

Enter the table with weight and pressure altitude to read %N1, KIAS and fuel flow per engine.

- Notes: 1. This table includes 5% additional fuel for holding in a racetrack pattern. Decrease fuel flow by 5% for holding in a other than a racetrack pattern.
2. Unless otherwise stated, extra holding is carried out at FL200.

All-Engine Operating (AEO) Holding

WEIGHT (TONNE)		PRESSURE ALTITUDE (1,000 FT)									
		1,500	5,000	10,000	15,000	20,000	25,000	30,000	35,000	40,000	43,000
360	%N1	62.4	65.4	69.5	74.3	78.9	83.5	88.5			
	KIAS	272	273	275	298	313	317	312			
	FF/ENG	4740	4690	4650	4800	4960	5140	5380			
340	%N1	60.9	63.8	67.9	72.3	77.3	82.1	86.6			
	KIAS	264	266	267	282	303	307	312			
	FF/ENG	4480	4440	4380	4450	4660	4800	4980			
320	%N1	59.4	62.1	66.3	70.4	75.7	80.3	85.0			
	KIAS	257	257	259	265	294	297	302			
	FF/ENG	4220	4180	4120	4130	4360	4460	4600			
300	%N1	57.8	60.4	64.6	68.6	73.8	78.5	83.2			
	KIAS	249	249	251	252	277	287	291			
	FF/ENG	3960	3920	3870	3850	4020	4130	4270			
280	%N1	56.2	58.7	62.8	66.8	71.6	76.6	81.3			
	KIAS	240	241	242	243	258	277	280			
	FF/ENG	3710	3670	3610	3590	3670	3830	3950			
260	%N1	54.4	56.9	60.8	64.9	69.3	74.6	79.3	84.1		
	KIAS	232	232	233	234	240	266	269	274		
	FF/ENG	3470	3420	3360	3330	3340	3540	3620	3750		
240	%N1	52.7	55.1	58.8	62.9	67.2	72.3	77.1	82.0		
	KIAS	226	226	226	226	226	248	258	262		
	FF/ENG	3250	3180	3110	3070	3070	3200	3310	3410		
220	%N1	50.9	53.2	56.8	60.7	64.9	69.6	74.7	79.6		
	KIAS	220	220	220	220	220	226	246	249		
	FF/ENG	3040	2960	2870	2830	2820	2850	3000	3090		
200	%N1	48.8	51.3	54.8	58.4	62.7	67.0	72.3	77.2	83.5	
	KIAS	213	213	213	213	213	213	233	237	241	
	FF/ENG	2830	2750	2650	2610	2580	2580	2690	2770	2930	
180	%N1	46.6	49.2	52.6	56.1	60.2	64.5	69.1	74.3	80.8	
	KIAS	206	206	206	206	206	206	208	224	227	
	FF/ENG	2640	2550	2450	2410	2360	2390	2350	2470	2590	
160	%N1	44.3	46.7	50.4	53.8	57.5	62.0	66.1	71.3	77.7	81.8
	KIAS	199	199	199	199	199	199	199	210	213	215
	FF/ENG	2500	2420	2320	2260	2210	2170	2160	2180	2270	2340



HOLDING - One Engine Inoperative (OEI)

The One Engine Inoperative (single engine) holding data is provided in a similar format to the All Engines Operative holding data and is based on the same assumptions.

Enter the table with weight and pressure altitude to read %N1, KIAS and fuel flow per engine.

Note: This table includes 5% additional fuel for holding in a racetrack pattern. Decrease fuel flow by 5% for holding in a other than a racetrack pattern.

One Engine Inoperative (OEI) Holding

WEIGHT (TONNE)		PRESSURE ALTITUDE (1,000 FT)						
		1,500	5,000	10,000	15,000	20,000	25,000	30,000
360	%N1	81.1	84.5	89.2	94.5			
	KIAS	272	273	275	298			
	FF/ENG	9270	9350	9640	10310			
340	%N1	79.3	82.6	87.4	92.2			
	KIAS	264	266	267	282			
	FF/ENG	8720	8760	8990	9410			
320	%N1	77.6	80.6	85.4	90.1	98.4		
	KIAS	257	257	259	265	294		
	FF/ENG	8170	8190	8350	8590	9780		
300	%N1	75.6	78.6	83.4	88.1	94.5		
	KIAS	249	249	251	252	277		
	FF/ENG	7640	7640	7740	7890	8730		
280	%N1	73.7	76.6	81.1	86.0	91.3		
	KIAS	240	241	242	243	258		
	FF/ENG	7120	7090	7150	7250	7830		
260	%N1	71.6	74.5	78.8	83.7	88.8	97.3	
	KIAS	232	232	233	234	240	266	
	FF/ENG	6600	6570	6570	6640	7030	7980	
240	%N1	69.3	72.3	76.5	81.3	86.3	92.6	
	KIAS	226	226	226	226	226	248	
	FF/ENG	6090	6060	6040	6080	6360	6920	
220	%N1	67.0	69.9	74.1	78.6	83.8	88.8	99.1
	KIAS	220	220	220	220	220	226	246
	FF/ENG	5600	5570	5530	5540	5750	6060	7020
200	%N1	64.7	67.4	71.6	76.0	80.9	85.8	93.5
	KIAS	213	213	213	213	213	213	233
	FF/ENG	5130	5090	5030	5040	5180	5360	5950
180	%N1	62.2	64.8	68.9	73.2	77.9	83.0	88.0
	KIAS	206	206	206	206	206	206	208
	FF/ENG	4670	4620	4560	4560	4640	4780	5000
160	%N1	59.5	62.1	65.9	70.3	74.7	79.8	84.5
	KIAS	199	199	199	199	199	199	199
	FF/ENG	4230	4170	4110	4100	4150	4230	4360





Computer Flight Plan Number One

XX
COMPUTER FLIGHT PLAN
B777-300 ER
XX

PLANNED TO 180 MIN EDTO

CO ROUTE – AKLLAXT01

FMS NAV DATA ACTIVE FEB07MAR07 / XX

ROUTE DESCRIPTION

NZAA DCT AA INTIB 25W74 20W69 15W64 10W60 99PPT 02N53 SANTA B577
LENNA FICKY C1177 SXC LAX DCT KLAX

ROUTE PROFILE

310 20W69 330 02N53 350 AHNDO 370

WAYPOINT 99PPT IS A COMPANY WAYPOINT TO ENABLE UPR CREATION WHICH AVOIDS ANSP
ADS-C TRANSFER ISSUES. WAYPOINT NAME 99PPT IS NOT TO BE USED FOR ATC PURPOSES
WHERE 05 00S 157 06W SHALL BE USED.

NZ 6 / 25	NZAA-KLAX	ETD 25FEB XX – 0615Z							
		STA – 1830Z							RADIO LOG
CAPTAIN BLYTH M		BLOX FUEL .							RADIO
FREQ									
DESP MARCO POLO		A/FL TAXI FUEL .							P
ZKOKX CR050	TRK.T FW/V TMP	MNO FL	DIST	ZEET	FUELRM				S
PDA 01.8	TRK.M AW/V	GS SH	ZATA	ZETA	FUELRQ				STN / UTC

RVSM ALTIMETER CHECK CAPT: STBY: F / O:

WP NZAA			CL050DR1						
S 37 00.5									
E 174 47.5		AIREP / Z			S/H			95.8	
WP AA		.... / ..... Z							
S 37 00.3	079.1	11001	CLB	CLB	1	0			
E 174 48.8	059.1		135	49	.....	.....		95.7	
TOC	037.8	12024	CLB	CLB	119	19			
	017.8		380	55	.....	.....		89.4	
WP NZZO99	NZZO	.... / ..... Z							
S 34 21.1	037.8	13031M43	832	F310	80	10			
E 177 16.1	017.8		492	55	.....	.....		87.9	
WP INTIB		.... / ..... Z							
S 30 00.0	036.4	07028M42	832	F310	320	41			
W 179 05.9	018.0		470	21	.....	.....		81.7	
WP 25W74		.... / ..... Z							
S 25 00.0	043.5	32033M35	831	F310	404	49			
W 174 00.0	026.9		490	30	.....	.....		74.2	

WP 20W69		.... / ..... Z						
S 20 00.0	043.9	29041M34	831	F310	408	48		
W 169 00.0	029.3		517	16	....	....		67.0
WP 15W64		.... / ..... Z						
S 15 00.0	044.6	26017M38	832	F330	414	48		
W 164 00.0	031.7		512	16	....	....		59.9
WP 10W60		.... / ..... Z						
S 10 00.0	038.6	19018M38	832	F330	380	44		
W 160 00.0	027.1		514	14	....	....		53.6
WP 99PPT KZAK		.... / ..... Z						
S 05 00.0	030.3	21023M37	832	F330	345	40		
W 157 06.0	020.0		521	14	....	....		48.1
WP 02N53		.... / ..... Z						
N 02 00.0	030.6	25045M39	831	F330	485	55		
W 153 00.0	020.8		529	13	....	....		40.4
WP SANTA		.... / ..... Z						
N 07 07.8	030.3	26068M45	833	F350	355	40		
W 150 00.0	021.5		531	10	....	....		35.1
WP CANOL		.... / ..... Z						
N 12 57.8	043.9	26050M47	833	F350	487	55		
W 144 14.6	035.0		530	27	....	....		28.0
WP BELAN		.... / ..... Z						
N 18 48.5	044.9	25070M49	832	F350	500	55		
W 138 03.1	035.0		550	27	....	....		21.2
WP AHNDO		.... / ..... Z						
N 24 25.7	046.7	24087M50	832	F350	501	53		
W 131 24.7	036.0		567	10	....	....		14.7
WP LENNA		.... / ..... Z						
N 30 31.5	049.0	25089M57	833	F370	578	61		
W 122 59.7	037.0		562	10	....	....		7.5
WP FICKY KZLA		.... / ..... Z						
N 31 33.5	052.8	26052M59	833	F370	103	12		
W 121 23.5	040.3		522	10	....	....		6.2
WP ROSIN		.... / ..... Z						
N 31 56.5	067.9	26044M60	833	F370	62	8		
W 120 16.1	054.0		517	10	....	....		5.4
TOD	047.0	26040	833	F370	17	2		
	033.0		507	45	....	....		5.1
WP MALIT		.... / ..... Z						
N 32 28.5	047.0	26031	DSC	DSC	30	4		
W 119 35.5	033.0		375	45	....	....		5.0

WP GOATZ		.... / ..... Z						
N 33 11.1	047.4	29022	DSC	DSC	63	11		
W 118 40.2	033.0		359	106	....	....		4.7
WP SXC		.... / ..... Z						
N 33 22.5	047.8	33020	DSC	DSC	17	3		
W 118 25.2	033.0		343	129	....	....		4.7
WP KLAX		.... / ..... Z						
N 33 56.5	359.1	33010	DSC	DSC	33	6		
W 118 24.5	344.1		349	129	....	....		4.1A

STA 1830Z

DISTANCE SUMMARY / FF = AVERAGE FUEL FLOW (TONNES PER HOUR)
S/H
10564KM 6560SM 5704NM AV COMP P033 ESAD 5345NM TIME 1104 FF 8.3
ETA

DESCENT SPOT WIND DATA

ALT	WIND	ALT	WIND	ALT	WIND	ALT	WIND
	DIR SPD		DIR SPD		DIR SPD		DIR SPD
29000	286 / 035	21000	310 / 026	13000	328 / 022	7000	329 / 013

Z F WT	222000	A-B TIME/FUEL	1104	91343
NET FUEL	104820	CONTGCY FUEL 2 / 2		1828
B R WT	326820	DEP ALLOWANCE		0
BURNOFF	92849	ETP B/U	0045	5015
LAND WT	233971	ARRVL ALLNC		407
		INST APP KLAX		12
MIN RES	2985	XTR HOLD KLAX	0021	2143
		TANKER FUEL		0
COST INDEX	050	DIV TO	0000	0
CRZ ALT	310	XTR HOLD		0
CRZ WIND	128 / 31	FIXED FUEL RES	0030	2985
T/C OAT	-43	TTL ENDRNCE FUEL	1252	104820

TIME/FUEL SUMMARIES FOR ZFW CHANGE

	ZFW	A-B	TIME / FUEL	BURNOFF	TTL FUEL
PLUS 1000KG OR LIMITING ZFW	223000		1104 91697	93203	105192
FL310 20W69 330 02N53 350 AHNDO 370					
MINUS 1000KG	221000		1104 90973	92479	104361
FL310 20W69 330 02N53 350 AHNDO 370					

CONTINGENCY SUMMARIES

	ZFW	A - B	TIME / FUEL	BURNOFF	TTL FUEL
LOWER LEVEL CR050	222000		1104 93142	94648	106365
CONTGCY FUEL 2/2 FL290 20W69 310 02N53 330 AHNDO 350					
HIGH SPEED CR200	222000		1055 93210	94716	106183
CONTGCY FUEL 2/2 FL310 20W69 330 02N53 350					
LOWER SPEED CR000	222000		1108 91256	92762	104755
CONTGCY FUEL 2/2 FL310 20W69 330 02N53 350 AHNDO 370					

CRITICAL FUEL SUMMARIES

S/H NZAA -

EDTO

ENTRY AKL S31 17.21 E179 52.40 EET 00.57 ETA
 EXIT LAX N29 21.99 W124 43.95 EET 10.07 ETA

ETPID

AKL - PPT AT 20W69 - 104 FUEL: ETP 26493 EXCESS 50797 REQD 54023
 NZAA TO ETP POSN S21 17.6 W170 14.8 EET 2.35 ETP ETAZ
 ETP TO AKL DIST 1228 WIND CMP P008 EET 3.20
 ETP TO PPT DIST 1198 WIND CMP P003 EET 3.19
 ETP CRZ FF INCR BY 1% FOR 50% OF EET FROM ETP DUE ICING CONDNS

ETPID

PPT - HNL AT 02N53 - 16 FUEL: ETP 26642 EXCESS 21906 REQD 82914
 NZAA TO ETP POSN N01 46.1 W153 08.2 EET 5.52 ETP ETAZ
 ETP TO PPT DIST 1133 WIND CMP M005 EET 3.20
 ETP TO HNL DIST 1147 WIND CMP M001 EET 3.20
 ETP CRZ FF INCR BY 1% FOR 50% OF EET FROM ETP DUE ICING CONDNS

ETPID

ITO - LAX AT AHND0 -241 FUEL: ETP 25279 EXCESS 0 REQD 104820
 NZAA TO ETP POSN N21 45.0 W134 40.8 EET 8.51 ETP ETAZ
 ETP TO ITO DIST 1134 WIND CMP P001 EET 3.14
 ETP TO LAX DIST 1144 WIND CMP M005 EET 3.15
 ETP CRZ FF INCR BY % FOR % OF EET FROM ETP DUE ICING CONDNS

ALTERNATE SUMMARIES

KLAX-KONT 97NM FL 130 WC P005 TIME 0.22 FUEL 3270 MIN RES 6255
 KLAX DCT SLI V8 PDZ DCT KONT
 KLAX-KFAT 186NM FL 200 WC M022 TIME 0.39 FUEL 5158 MIN RES 8143
 KLAX DCT EHF TTE DCT KFAT
 KLAX-KLAS 236NM FL 210 WC M003 TIME 0.43 FUEL 5782 MIN RES 8767
 KLAX DCT DAG DCT KLAS

WIND TEMP AND COMP SUMMARY

WX PROG DAY/HOUR XX/18

POINT	FL140		FL220		LOWER LEVEL		PLANNED FL		HIGHER LEVEL	
	WIND	TMP	WIND	COMP	FL	WIND COMP	FL	WIND COMP	FL	WIND COMP
NZAA	12022	M01	13024		29	15021	31	15020	33	17020
AA	12022	M01	13024	M018	29	15021	M008	31	16020	M005
NZZO9	11035	M02	11042	M013	29	11043	M014	31	11043	M014
INTIB	08018	M02	02020	M019	29	00034	M028	31	00036	M030
25W74	34016	P01	32022	M003	29	29044	P012	31	29052	P015

⇓

ROSIN	34015	M07	30015	P010	35	26032	P031	37	26043	P042	39	26053	P051
MALIT	34018	M07	30019	P004	35	26030	P024	37	26038	P030	39	26045	P035
GOATZ	33020	M08	31024	P004	35	27035	P026	37	27039	P029	39	27043	P032
SXC	33021	M08	31025	P004	35	27036	P026	37	27039	P029	39	27042	P032
LAX	33023	M08	31027	M017	35	27039	M003	37	27040	M002	39	27042	M002
KLAX	33023	M08	31027		35	27039		37	27041		39	27042	

FLIGHT PLAN HEADLINES

 PLANNED ON ROUTE AKLLAXT01 ETD 25FEBXX / 0615Z

DEPT ALT / 0.00
 DESTN ALT / 0.00

EDTO DETAILS

 PLANNED TO 180 MIN EDTO

ENTER EDTO AFTER 00.57 BASED ON AKL
 EXIT EDTO AFTER 10.07 BASED ON LAX

EDTO ALTERNATE TIMINGS

 DEPARTURE TIME (ETD) 0615Z

 LATEST TIME AT AKL 1209Z

 ICING AKL / PPT 1% / 50%
 EARLIEST TIME AT PPT 1208Z
 LATEST TIME AT PPT 1527Z

 ICING PPT / HNL 1% / 50%
 EARLIEST TIME AT HNL 1528Z
 LATEST TIME AT ITO 1820Z

 ICING ITO / LAX % / %
 EARLIEST TIME AT LAX 1821Z

 ARRIVAL TIME (ETA) 1731Z





Computer Flight Plan Number Two

XX

COMPUTER FLIGHT PLAN

B777-300 ER

XX

PLANNED TO 120 MIN EDTO

CO ROUTE – AKLPER1

FMS NAV DATA ACTIVE APR04MAY02 / XX

ROUTE DESCRIPTION

NZAA DCT PEBLU N759 ML Q158 PH DCT YPPH

ROUTE PROFILE

300 MIKEL 360 GEMAC 380

NZ 175 / 12	NZAA-YPPH	ETD 12APR XX	– 0235Z							
		STA	– 1033Z							RADIO LOG
CAPTAIN BLACK C		BLOX FUEL	.							RADIO
FREQ										
DESP JOHN WHITE		A/FL TAXI FUEL	.							P
ZKOKX CR050	TRK.T FW/V TMP	MNO	FL	DIST	ZEET	FUELRM				S
PDA 02.5	TRK.M AW/V	GS	SH	ZATA	ZETA	FUELRQ				STN / UTC

RVSM ALTIMETER CHECK CAPT: STBY: F / O:

WP NZAA				CL050DR1				
S 37 00.5								
E 174 47.5		AIREP / Z			S/H		66.3	
TOC	249.4	24028	CLB	CLB	68	12		
	229.4		332	49	.....	.....	62.2	
WP PEBLU	NZZO	.... / .....	Z					
S 38 06.6	249.4	25046M45	790	F300	131	19		
E 170 51.5	229.4		419	49	.....	.....	59.9	
WP SASRO	YBBB	.... / .....	Z					
S 38 34.8	263.2	27051M44	785	F300	372	54		
E 163 00.0	244.0		412	10	.....	.....	53.4	
WP MIKEL		.... / .....	Z					
S 38 35.7	268.1	28061M45	779	F300	257	39		
E 157 32.1	250.0		399	10	.....	.....	48.6	
WP GEMAC	YMMM /						
S 38 13.4	271.5	29057M59	830	F360	341	48		
E 150 19.5	255.0		420	52	.....	.....	43.1	
WP FARRA		.... / .....	Z					
S 37 47.7	276.0	28034M60	832	F380	202	28		
E 146 05.5	262.0		439	73	.....	.....	40.1	
WP BADGR		.... / .....	Z					
S 37 43.1	278.6	27031M60	832	F380	30	4		
E 145 28.0	267.0		443	73	.....	.....	39.7	

MELBOURNE							
WP ML		.... / .....	Z				
S 37 39.6	276.5	26030M60	832	F380	30	4	
E 144 50.5	265.0		444	73	.....	.....	39.2
WP CRENA		.... / .....	Z				
S 37 16.4	274.4	24060M60	832	F380	229	32	
E 140 04.9	263.0		426	64	.....	.....	35.8
WP KROWS		.... / .....	Z				
S 36 49.9	280.2	23106M60	832	F380	138	21	
E 137 15.7	271.0		397	31	.....	.....	33.6
WP CANDY		.... / .....	Z				
S 36 25.5	281.9	23097M59	831	F380	112	17	
E 135 00.0	274.0		403	25	.....	.....	31.9
WP CLAMY		.... / .....	Z				
S 35 51.2	280.3	24100M58	831	F380	173	26	
E 131 30.0	274.0		397	21	.....	.....	29.2
WP COBEL		.... / .....	Z				
S 35 10.1	282.4	25113M56	830	F380	176	27	
E 128 00.0	277.0		381	10	.....	.....	26.3
WP CRICK		.... / .....	Z				
S 34 29.5	284.4	25110M55	829	F380	154	25	
E 125 00.0	281.0		379	19	.....	.....	23.9
ESPERANCE							
WP ESP		.... / .....	Z				
S 33 40.8	286.2	26103M55	829	F380	166	26	
E 121 49.4	284.0		382	35	.....	.....	21.2
WP KATHI		.... / .....	Z				
S 32 59.4	289.4	27090M54	828	F380	121	18	
E 119 34.2	289.0		393	35	.....	.....	19.3
TOD	290.7	27079	827	F380	65	10	
	291.0		401	34	.....	.....	18.4
WP HAMTN		.... / .....	Z				
S 32 21.8	290.7	28071	DSC	DSC	39	8	
E 117 39.4	291.0		286	34	.....	.....	18.1
WP BEVLY		.... / .....	Z				
S 32 10.8	285.7	27033	DSC	DSC	40	8	
E 116 54.0	287.0		323	34	.....	.....	17.9
WP PH		.... / .....	Z				
S 31 56.7	286.1	31026	DSC	DSC	50	9	
E 115 57.6	287.0		330	34	.....	.....	17.7
WP YPPH		.... / .....	Z				
S 31 56.4	048.7	30000	DSC	DSC	0		
E 115 58.0	050.7		355	34	.....	.....	17.7

STA 1033Z

DISTANCE SUMMARY / FF = AVERAGE FUEL FLOW (TONNES PER HOUR)
S/H
5360KM 3328SM 2894NM AV COMP M063 ESAD 3350NM TIME 0715 FF 6.7
ETA

DESCENT SPOT WIND DATA

ALT	WIND DIR SPD	ALT	WIND DIR SPD	ALT	WIND DIR SPD	ALT	WIND DIR SPD
29000	281 / 053	21000	274 / 032	13000	292 / 025	7000	302 / 021

1ST ALTERNATE DIVERSION SUMMARY

YPAD DIST 1151 FL 410 WC P073 EET 2.18 FUEL 13935
 S 34 56.7
 E 138 31.8

CO ROUTE - PERADL1

ROUTE DESCRIPTION

YPPH DCT PH H18 BURGU Y135 YORKE J15 AD DCT YPAD

Z F WT	180500	A-B TIME/FUEL	0715	48658
NET FUEL	67316	CONTGCY FUEL 2 / 2		974
B R WT	247816	DEP ALLOWANCE		0
BURNOFF	49765	ETP B/U		0
LAND WT	198051	ARRVL ALLNC		0
MIN RES	16577	INST APP YPPH	12	1107
		XTR HOLD YPPH		0
		TANKER FUEL		0
COST INDEX	050	DIV TO YPAD	0218	13935
CRZ ALT	300	XTR HOLD YPAD		0
CRZ WIND	248 / 46	FIXED FUEL RES	0030	2642
T/C OAT	-45	TTL ENDRNCE FUEL	1015	67316

TIME/FUEL SUMMARIES FOR ZFW CHANGE

	ZFW	A-B	TIME / FUEL	BURNOFF	TTL FUEL
PLUS 1000KG OR LIMITING ZFW FL300 MIKEL 360 GEMAC 380	181500		0715 48826	49933	67548
MINUS 1000KG FL300 SASRO 320 MIKEL 360 GEMAC 380	179500		0715 48444	49551	67039

CONTINGENCY SUMMARIES

	ZFW	A - B	TIME / FUEL	BURNOFF	TTL FUEL
LOWER LEVEL CR050 CONTGCY FUEL 2/2 FL280 MIKEL 340 GEMAC 360	180500		0713 49258	50365	67928
HIGH SPEED CR200 CONTGCY FUEL 2/2 FL320 MIKEL 360 GEMAC 380	180500		0701 49914	51021	68596
LOWER SPEED CR000 CONTGCY FUEL 2/2 FL300 SASRO 320 MIKEL 360 GEMAC 380	180500		0729 48683	49790	67341

CRITICAL FUEL SUMMARIES

S/H NZAA -

EDTO

ENTRY CHC S38 28.18 E165 54.76 EET 01.05 ETA
 EXIT PER S34 13.74 E123 55.64 EET 06.04 ETA

ETPD

AKL - CHC AT SASRO - 140 FUEL : ETP 9125 EXCESS 47494 REQD 19822
 NZAA TO ETP POSN S38 27.9 E165 58.4 EET 1.05 ETP ETA Z
 ETP TO AKL DIST 431 WIND CMP P016 EET 1.14
 ETP TO CHC DIST 446 WIND CMP P012 EET 1.15
 ETP CRZ FF INCR BY 1% FOR 50% OF EET FROM ETP DUE ICING CONDNS

ETPID

CHC - SYD AT MIKEL - 159 FUEL : ETP 12152 EXCESS 40071 REQD 27245
 NZAA TO ETP POSN S38 36.9 E160 55.1 EET 1.40 ETP ETA Z
 ETP TO CHC DIST 652 WIND CMP P017 EET 1.48
 ETP TO SYD DIST 653 WIND CMP P018 EET 1.48
 ETP CRZ FF INCR BY 1% FOR 75% OF EET FROM ETP DUE ICING CONDNS

ETPD

SYD - MEL AT FARRA - 188 FUEL : ETP 6259 EXCESS 37095 REQD 30221
 NZAA TO ETP POSN S38 11.9 E150 01.1 EET 2.54 ETP ETA Z
 ETP TO SYD DIST 275 WIND CMP M001 EET 0.48
 ETP TO MEL DIST 261 WIND CMP M019 EET 0.48
 ETP CRZ FF INCR BY % FOR % OF EET FROM ETP DUE ICING CONDNS

ETPD

MEL - ADL AT CRENA - 32 FUEL : ETP 4854 EXCESS 31820 REQD 35496
 NZAA TO ETP POSN S37 20.3 E140 44.3 EET 3.56 ETP ETA Z
 ETP TO MEL DIST 205 WIND CMP P016 EET 0.34
 ETP TO ADL DIST 188 WIND CMP M014 EET 0.34
 ETP CRZ FF INCR BY % FOR % OF EET FROM ETP DUE ICING CONDNS

ETPID

ADL - PER AT CRICK - 46 FUEL : ETP 11986 EXCESS 12758 REQD 54558
 NZAA TO ETP POSN S34 42.1 E125 53.5 EET 5.49 ETP ETA Z
 ETP TO ADL DIST 603 WIND CMP P027 EET 1.47
 ETP TO PER DIST 527 WIND CMP M031 EET 1.47
 ETP CRZ FF INCR BY % FOR % OF EET FROM ETP DUE ICING CONDNS

ALTERNATE SUMMARIES

YPPH-YPLM 596NM FL 400 WC M018 TIME 1.30 FUEL 9885 MIN RES 12527
 YPPH DCT PH H17 LM DCT YPLM
 YPPH-YMML 1466NM FL 410 WC P048 TIME 2.52 FUEL 17547 MIN RES 20189
 YPPH DCT PH H18 BURGU Y53 WENDY V279 ML DCT YMML
 YPPH-YSSY 1773NM FL 410 WC P048 TIME 3.30 FUEL 20917 MIN RES 23559
 YPPH DCT PH H18 NSM J21 GTH UH205 CULIN Y59 RIVET DCT YSSY

WIND TEMP AND COMP SUMMARY

WX PROG DAY / HOUR XX / 18

	FL140	FL220	LOWER LEVEL		PLANNED FL		HIGHER LEVEL	
POINT	WIND TMP	WIND COMP	FL	WIND COMP	FL	WIND COMP	FL	WIND COMP
NZAA	25018M07	25026	28	26039	30	26046	32	26057
PEBLU	25018M07	25026M026	28	26039M038	30	26046M045	32	26057M057
SASRO	29037M08	28045M044	28	28054M053	30	28061M060	32	28074M073

↓

BEVLY	29025M01	27036M035	36	28070M069	38	28077M076	40	28085M085
PH	29025M01	28035M035	36	29069M069	38	29074M074	40	28082M082
YPPH	29025M01	28035	36	29069	38	29074	40	28082

FLIGHT PLAN HEADLINES

 PLANNED ON ROUTE AKLPER1 ETD 12APRXX / 0235Z

DEPT ALT / 0.00 0000Z

DESTN ALT ADL / 2.18 1220Z

EDTO DETAILS

 PLANNED TO 120 MIN EDTO

ENTER EDTO AFTER 01.05 BASED ON CHC

EXIT EDTO AFTER 06.04 BASED ON PER

EDTO ALTERNATE TIMINGS

 DEPARTURE TIME (ETD) 0235Z

LATEST TIME AT AKL 0454Z

ICING AKL / CHC 1% / 50%

EARLIEST TIME AT CHC 0454Z

LATEST TIME AT CHC 0603Z

ICING CHC / SYD 1% / 75%

EARLIEST TIME AT SYD 0603Z

LATEST TIME AT SYD 0617Z

ICING SYD / MEL % / %

EARLIEST TIME AT MEL 0617Z

LATEST TIME AT MEL 0705Z

ICING MEL / ADL % / %

EARLIEST TIME AT ADL 0705Z

LATEST TIME AT ADL 1011Z

ICING ADL / PER % / %

EARLIEST TIME AT PER 1011Z

ARRIVAL TIME (ETA) 1002Z



Computer Flight Plan Number Three

XX

COMPUTER FLIGHT PLAN

B777-300 ER

XX

PLANNED TO 180 MIN EDTO

CO ROUTE -LAXAKLT01

FMS NAV DATA ACTIVE JUN27JUL25 / XX

ROUTE DESCRIPTION

KLAX DCT FICKY 25N30 20N35 15N40 10N45 05N50 00N54 05W58 10W61
15W64 20W67 SAMAD B200 TATAS DABAS EXOPI AA DCT NZAA

ROUTE PROFILE

280 FICKY 300 10N45 320 05W58 340 TATAS 320 DABAS 300

NZ 1 / 21	KLAX-NZAA	ETD 21JUL XX	- 0445Z						
		STA	- 1745Z						RADIO LOG
CAPTAIN SHATNER W		BLOX FUEL	.						RADIO
FREQ									
DESP JANE SEYMORE		A/FL TAXI FUEL	.						P
ZKOKX CR050	TRK.T FW/V TMP	MNO	FL	DIST	ZEET	FUELRM			S
PDA 02.5	TRK.M AW/V	GS	SH	ZATA	ZETA	FUELRQ			STN / UTC

RVSM ALTIMETER CHECK CAPT: STBY: F / O:

WP KLAX				CL050DR1				
N 33 56.5								
W 118 24.5		AIREP / Z			S/H		116.6	
TOC	227.4	08022	CLB	CLB	149	22		
	213.4		401	124	.....	.....	109.3	
WP FICKY	KZAK	.... / .....	Z					
N 31 33.5	227.4	10011M27	828	F280	58	7		
W 121 23.5	213.4		514	124	.....	.....	108.1	
WP 25N30		.... / .....	Z					
N 25 00.0	231.4	02002M34	831	F300	601	72		
W 130 00.0	219.0		504	10	.....	.....	95.9	
WP 20N35		.... / .....	Z					
N 20 00.0	223.9	33017M32	831	F300	408	48		
W 135 00.0	211.6		507	10	.....	.....	88.0	
WP 15N40		.... / .....	Z					
N 15 00.0	224.6	32003M31	830	F300	414	49		
W 140 00.0	213.6		503	10	.....	.....	80.1	
WP 10N45		.... / .....	Z					
N 10 00.0	225.1	13015M31	829	F300	419	50		
W 145 00.0	215.1		503	27	.....	.....	72.2	

WP 05N50		.... / ..... Z						
N 05 00.0	225.3	12013M36	832	F320	422	51		
W 150 00.0	216.1		503	10	.....	.....		64.5
WP 00N54		.... / ..... Z						
N 00 00.0	218.9	10014M36	831	F320	383	45		
W 154 00.0	210.1		505	10	.....	.....		57.7
WP 05W58	NZZO	.... / ..... Z						
S 05 00.0	218.8	27002M36	829	F320	383	46		
W 158 00.0	209.9		497	10	.....	.....		50.9
WP 10W61		.... / ..... Z						
S 10 00.0	210.7	28022M42	832	F340	348	43		
W 161 00.0	201.3		486	14	.....	.....		44.8
WP 15W64		.... / ..... Z						
S 15 00.0	210.2	30029M42	832	F340	347	43		
W 164 00.0	199.9		491	14	.....	.....		39.0
WP 20W67		.... / ..... Z						
S 20 00.0	209.5	30032M44	831	F340	345	42		
W 167 00.0	198.0		490	14	.....	.....		33.3
WP SAMAD		.... / ..... Z						
S 25 00.0	208.7	33054M44	830	F340	343	40		
W 170 01.2	195.8		513	14	.....	.....		28.0
WP TATAS		.... / ..... Z						
S 30 00.0	222.1	34044M45	830	F340	411	49		
W 175 17.7	207.0		505	10	.....	.....		21.8
WP DABAS	NZZC	.... / ..... Z						
S 34 50.7	228.0	28006M47	817	F320	449	56		
E 177 56.7	211.2		476	21	.....	.....		14.7
TOD	234.1	22029	796	F300	90	13		
	215.4		441	55	.....	.....		13.1
WP EXOPI		.... / ..... Z						
S 36 21.9	234.1	18024	DSC	DSC	68	12		
E 175 18.1	215.4		320	55	.....	.....		12.8
WP AA		.... / ..... Z						
S 37 00.3	211.4	17008	DSC	DSC	45	9		
E 174 48.8	192.2		327	55	.....	.....		12.5
WP NZAA		.... / ..... Z						
S 37 00.5	259.1	20000	DSC	DSC	1			
E 174 47.5	239.1		333	55	.....	.....		12.5

STA 1745Z

DISTANCE SUMMARY / FF = AVERAGE FUEL FLOW (TONNES PER HOUR)
S/H
10527KM 6537SM 5684NM AV COMP P002 ESAD 5657NM TIME 1137 FF 9.0
ETA

DESCENT SPOT WIND DATA

ALT	WIND	ALT	WIND	ALT	WIND	ALT	WIND
	DIR SPD		DIR SPD		DIR SPD		DIR SPD
29000	257 / 022	21000	283 / 011	13000	236 / 006	7000	200 / 004

1ST ALTERNATE DIVERSION SUMMARY

NZCH DIST 406 FL 360 WC M002 EET 1.04 FUEL 08292
 S 43 29.3
 E 172 32.0

CO ROUTE - AKLCHC1

ROUTE DESCRIPTION

NZAA DCT AA H384 NP H252 NS Y288 CH DCT NZCH

Z F WT	233735	A-B TIME/FUEL	1137	104106
NET FUEL	117799	CONTGCY FUEL 0 / 2		310
B R WT	351534	DEP ALLOWANCE		0
BURNOFF	105213	ETP B/U		0
LAND WT	246321	ARRVL ALLNC		0
MIN RES	11422	INST APP NZAA	12	1107
		XTR HOLD NZAA		0
		TANKER FUEL	0007	854
COST INDEX	050	DIV TO NZCH	0104	8292
CRZ ALT	280	XTR HOLD NZCH		0
CRZ WIND	099 / 11	FIXED FUEL RES	0030	3130
T/C OAT	-27	TTL ENDRNCE FUEL	1330	117799

DDP SUMMARY

DDP POINT SAMAD TIME/MIN DDP FUEL SAMAD TO AKL 0231/28318
 REFUEL APT NFFN TIME/FUEL BURN SAMAD TO NFFN 0157/12070

CONTINGENCY SUMMARIES	ZFW	A - B	TIME / FUEL	BURNOFF	TTL FUEL
LOWER LEVEL CR050	232842		1134 105032	106139	118697
CONTGCY FUEL 0/2					
FL260 FICKY 280 10N45 300 05W58 320 TATAS 300 DABAS 280					
HIGH SPEED CR200	232561		1127 105320	106427	118980
CONTGCY FUEL 0/2					
FL280 FICKY 300 10N45 320 05W58 340 TATAS 320					
LOWER SPEED CR000	233735		1145 104011	105118	117704
CONTGCY FUEL 0/2					
FL280 FICKY 300 10N45 320 05W58 340 TATAS 320 DABAS 300					

CRITICAL FUEL SUMMARIES

S/H KLAX -

EDTO

ENTRY LAX N29 15.29 W124 37.65 EET 00.55 ETA
 EXIT OHA S33 52.94 E179 23.59 EET 10.51 ETA

ETPID

LAX - HNL AT 15N40 - 389 FUEL : ETP 29382 EXCESS 58471 REQD 58474
 KLAX TO ETP POSN N19 42.1 W135 18.7 EET 2.32 ETP ETAZ
 ETP TO LAX DIST 1241 WIND CMP M008 EET 3.27
 ETP TO HNL DIST 1262 WIND CMP M003 EET 3.28
 ETP CRZ FF INCR BY % FOR % OF EET FROM ETP DUE ICING CONDNS

ETPID

HNL - PPT AT 00N54 - 134 FUEL : ETP 27432 EXCESS 32978 REQD 83967
 KLAX TO ETP POSN N01 45.0 W152 36.3 EET 5.28 ETP ETAZ
 ETP TO HNL DIST 1132 WIND CMP P005 EET 3.14
 ETP TO PPT DIST 1099 WIND CMP M005 EET 3.14
 ETP CRZ FF INCR BY 1% FOR 25% OF EET FROM ETP DUE ICING CONDNS

ETPID

PPT - APW AT 10W61 - 271 FUEL : ETP 20676 EXCESS 29211 REQD 87734
 KLAX TO ETP POSN S06 06.3 W158 39.4 EET 6.40 ETP ETAZ
 ETP TO PPT DIST 823 WIND CMP M009 EET 2.27
 ETP TO APW DIST 861 WIND CMP P009 EET 2.26
 ETP CRZ FF INCR BY 1% FOR 25% OF EET FROM ETP DUE ICING CONDNS

ETPID

APW - NAN AT TATAS - 217 FUEL : ETP 19893 EXCESS 5435 REQD 111510
 KLAX TO ETP POSN S27 22.7 W172 26.6 EET 9.41 ETP ETAZ
 ETP TO APW DIST 776 WIND CMP M015 EET 2.21
 ETP TO NAN DIST 759 WIND CMP M022 EET 2.21
 ETP CRZ FF INCR BY 1% FOR 75% OF EET FROM ETP DUE ICING CONDNS

ETPID

NAN - AKL AT TATAS - 229 FUEL : ETP 19910 EXCESS 5592 REQD 111353
 KLAX TO ETP POSN S27 14.5 W172 18.0 EET 9.40 ETP ETAZ
 ETP TO NAN DIST 757 WIND CMP M023 EET 2.21
 ETP TO AKL DIST 839 WIND CMP P007 EET 2.23
 ETP CRZ FF INCR BY 1% FOR 50% OF EET FROM ETP DUE ICING CONDNS

ETPID

NAN - OHA AT TATAS - 87 FUEL : ETP 19339 EXCESS 3979 REQD 112966
 KLAX TO ETP POSN S28 57.2 W174 07.9 EET 9.56 ETP ETAZ
 ETP TO NAN DIST 769 WIND CMP M008 EET 2.17
 ETP TO OHA DIST 740 WIND CMP P006 EET 2.19
 ETP CRZ FF INCR BY 1% FOR 50% OF EET FROM ETP DUE ICING CONDNS

ALTERNATE SUMMARIES

NZAA-NZOH 199NM FL 260 WC P002 TIME 0.37 FUEL 5196 MIN RES 8326
 NZAA DCT HN H325 TM H182 OH DCT NZOH
 NZAA-NFFN 1163NM FL 410 WC P003 TIME 2.25 FUEL 18971 MIN RES 22101
 NZAA DCT KALAG A578 AGTOS DCT NFFN
 NZAA-YSSY 1171NM FL 400 WC M016 TIME 3.20 FUEL 25194 MIN RES 28324
 NZAA DCT MADEP N774 MARLN DCT YSSY
 NZAA-YBBN 1246NM FL 410 WC M015 TIME 3.27 FUEL 26298 MIN RES 29428
 NZAA DCT PAPTI A464 ELLAS Q39 SAVER G329 BN DCT YBBN

WIND TEMP AND COMP SUMMARY

WX PROG DAY/HOUR XX/18

POINT	FL140		FL220		LOWER LEVEL		PLANNED FL		HIGHER LEVEL	
	WIND TMP	WIND COMP	FL	WIND COMP	FL	WIND COMP	FL	WIND COMP	FL	WIND COMP
KLAX	05014P05	05008	26	10007	28	11009	30	12011		
FICKY	05014P05	05008P008	26	10007P004	28	11009P004	30	12011P002		
25N30	35005P04	01013P009	28	35017P008	30	34019P007	32	33021P004		
20N35	02011P03	01010P008	28	34011P005	30	33012P003	32	31013M001		
15N40	07016P03	08016P013	28	09010P007	30	11007P003	32	15008M002		
10N45	09018P02	11015P007	28	14008P000	30	14006M001	32	13006P001		

↓

SAMAD	31034M03	32044P012	32	34066P043	34	34065P038	36	33064P028		
TATAS	06024M05	08030P025	32	03017P017	34	34014P006	36	30018M005		
DABAS	16023M08	17026M014	30	21028M026	32	22038M037	34	22050M050		
EXOPI	20008M07	24009M009	28	24020M020	30	24030M030	32	24046M046		
AA	25006M07	28011M004	30	25028M022	30	25028M022	34	24060M054		
NZAA	25006M07	28011	30	25028	30	25028	34	24060		



FLIGHT PLAN HEADLINES

 PLANNED ON ROUTE LAXAKLT01 ETD 21JULXX / 0445Z

DEPT ALT / 0.00 0000Z
 DESTN ALT CHC / 1.04 1738Z

EDTO DETAILS

 PLANNED TO 180 MIN EDTO

ENTER EDTO AFTER 00.55 BASED ON LAX
 EXIT EDTO AFTER 10.51 BASED ON OHA

EDTO ALTERNATE TIMINGS

 DEPARTURE TIME (ETD) 0445Z
 LATEST TIME AT LAX 1044Z
 ICING LAX / HNL % / %
 EARLIEST TIME AT HNL 1045Z
 LATEST TIME AT HNL 1327Z
 ICING HNL / PPT 1% / 25%
 EARLIEST TIME AT PPT 1327Z
 LATEST TIME AT PPT 1351Z
 ICING PPT / APW 1% / 25%
 EARLIEST TIME AT APW 1351Z
 LATEST TIME AT APW 1647Z
 ICING APW / NAN 1% / 75%
 EARLIEST TIME AT NAN 1647Z
 LATEST TIME AT NAN 1659Z
 ICING NAN / AKL 1% / 50%
 EARLIEST TIME AT AKL 1648Z
 ICING NAN / OHA 1% / 50%
 EARLIEST TIME AT OHA 1701Z
 ARRIVAL TIME (ETA) 1634Z

Computer Flight Plan Number Four

XX

COMPUTER FLIGHT PLAN

B777-300 ER

XX

PLANNED TO 180 MIN EDTO

CO ROUTE -LAXLHRT51

FMS NAV DATA ACTIVE MAR07APR04 / XX

ROUTE DESCRIPTION

KLAX DCT DAG J9 MLF KU75Q ISN YNE 5890N 6180N YFB DUTUM MUSVA 6460N 6450N
6440N 6330N 6220N BALIX UP59 NINEX UN590 GOW UN615 LAKEY NUGRA DCT EGLL

ROUTE PROFILE

310 YNE 330 6440N 350

NZ 2 / 07	KLAX-EGLL	ETD 07MAR XX - 0000Z								
		STA - 1045Z								RADIO LOG
CAPTAIN KIRK J		BLOX FUEL .								RADIO
FREQ										
DESP CHRISTOPHER COLUMBUS		A/FL TAXI FUEL .								P
ZKOKX CR050 TRK.T FW/V TMP	MNO	FL	DIST	ZEET	FUELRM					S
PDA 01.8 TRK.M AW/V	GS	SH	ZATA	ZETA	FUELRQ					STN / UTC

RVSM ALTIMETER CHECK CAPT: STBY: F / O:

WP KLAX			CL050DR1						
N 33 56.5									
W 118 24.5		AIREP / Z			S/H			86.6 D	
WP DAG		.... / ..... Z							
N 34 57.7	055.6	24048	CLB	CLB	109	16			
W 116 34.7	041.6		419	137	.....	.....		80.9	
WP MISEN		.... / ..... Z							
N 35 06.1	045.7	24069	CLB	CLB	12	1			
W 116 24.2	031.0		566	137	.....	.....		80.5	
TOC	045.7	24070	CLB	CLB	15	2			
	031.0		418	141	.....	.....		79.8	
WP CLARR		.... / ..... Z							
N 35 40.5	045.7	24069M48	832	F310	34	4			
W 115 40.8	031.0		553	141	.....	.....		79.2	
LAS VEGAS									
WP LAS		.... / ..... Z							
N 36 04.8	046.1	24069M48	832	F310	35	4			
W 115 09.6	031.0		553	141	.....	.....		78.7	
WP SUVIE		.... / ..... Z							
N 36 21.6	045.7	24071M48	832	F310	24	2			
W 114 48.3	031.0		554	141	.....	.....		78.3	
WP NORRA		.... / ..... Z							
N 36 45.6	046.4	24072M48	832	F310	35	4			
W 114 16.9	031.0		555	141	.....	.....		77.7	

WP BERYL KZLC		.... / .....	Z						
N 37	54.0	031.9	25075M49	832	F310	80	9		
W 113	23.1	017.0		547	153	.....	.....		76.4
MILFORD									
WP MLF		.... / .....	Z						
N 38	21.6	032.4	24076M49	832	F310	33	3		
W 113	00.8	017.0		548	153	.....	.....		75.8
WP KU75Q									
WP KU75Q		.... / .....	Z						
N 42	30.0	028.1	24082M51	831	F310	284	31		
W 110	00.0	012.1		549	161	.....	.....		71.2
WILLISTON									
WP ISN		.... / .....	Z						
N 48	15.2	035.2	24070M52	831	F310	435	48		
W 103	45.0	023.8		546	161	.....	.....		64.2
NORWAY HOUSE									
WP YNE CZWG		.... / .....	Z						
N 53	58.3	030.8	27051M56	830	F310	409	49		
W 097	50.4	018.8		507	55	.....	.....		57.3
WP 5890N									
WP 5890N		.... / .....	Z						
N 58	00.0	044.3	28052M61	832	F330	358	42		
W 090	00.0	039.3		505	25	.....	.....		51.4
WP 6180N CZUL									
WP 6180N CZUL		.... / .....	Z						
N 61	00.0	055.2	25048M62	832	F330	355	41		
W 080	00.0	062.1		519	26	.....	.....		45.9
FROBAY (IQALUIT)									
WP YFB		.... / .....	Z						
N 63	44.5	057.8	25062M61	832	F330	361	41		
W 068	28.4	077.9		533	49	.....	.....		40.6
WP DUTUM									
WP DUTUM		.... / .....	Z						
N 63	52.0	078.5	25069M61	832	F330	40	4		
W 067	00.0	109.5		541	56	.....	.....		40.0
WP MUSVA CZQX									
WP MUSVA CZQX		.... / .....	Z						
N 64	00.0	083.9	26070M62	832	F330	106	12		
W 063	00.0	113.8		541	56	.....	.....		38.5
WP 6460N									
WP 6460N		.... / .....	Z						
N 64	00.0	088.7	27069M62	832	F330	79	9		
W 060	00.0	119.0		540	56	.....	.....		37.3
WP BIRD									
WP BIRD		.... / .....	Z						
N 64	04.6	085.5	27067M62	832	F330	88	10		
W 056	39.2	120.2		538	10	.....	.....		36.1
WP 6450N									
WP 6450N		.... / .....	Z						
N 64	00.0	088.5	29067M60	832	F330	176	19		
W 050	00.0	119.3		536	108	.....	.....		33.6
WP 6440N									
WP 6440N		.... / .....	Z						
N 64	00.0	085.5	30043M53	831	F330	264	31		
W 040	00.0	117.6		514	108	.....	.....		29.5
WP 6330N									
WP 6330N		.... / .....	Z						
N 63	00.0	098.1	20030M62	833	F350	275	34		
W 030	00.0	125.8		483	108	.....	.....		25.1

WP 6220N		.... / ..... Z						
N 62 00.0	097.7	20038M63	833	F350	284	36		
W 020 00.0	119.5		475	37	.....	.....		20.7
WP BALIX EGPX		.... / ..... Z						
N 59 00.0	116.9	19018M63	833	F350	347	45		
W 010 00.0	132.6		463	10	.....	.....		15.3
WP NINEX MNPS		.... / ..... Z						
N 58 51.3	119.1	15013M63	833	F350	18	3		
W 009 30.0	126.0		459	31	.....	.....		15.0
BENBECULA								
WP BEN		.... / ..... Z						
N 57 28.7	139.8	16016M62	833	F350	107	14		
W 007 21.9	147.0		456	51	.....	.....		13.3
WP SUPIT		.... / ..... Z						
N 57 20.0	133.9	17024M62	833	F350	13	1		
W 007 05.1	139.0		453	57	.....	.....		13.1
GLASGOW								
WP GOW		.... / ..... Z						
N 55 52.2	134.0	18033M62	833	F350	124	17		
W 004 26.7	140.0		449	57	.....	.....		11.2
WP FENIK		.... / ..... Z						
N 55 42.9	150.8	18040M62	833	F350	11	1		
W 004 17.5	155.0		438	57	.....	.....		11.0
DEAN CROSS								
WP DCS EGGT		.... / ..... Z						
N 54 43.3	150.9	18041M61	833	F350	68	10		
W 003 20.4	155.0		437	57	.....	.....		9.9
WP LAKEY		.... / ..... Z						
N 54 14.3	156.5	18041M61	833	F350	32	4		
W 002 58.9	160.0		434	48	.....	.....		9.4
WP NUGRA		.... / ..... Z						
N 53 01.8	161.3	17041M61	833	F350	77	11		
W 002 18.2	164.0		432	48	.....	.....		8.1
TOD	143.2	16038	833	F350	15	2		
	145.8		437	47	.....	.....		7.9
WP EGLL								
N 51 28.7	143.2	16025	DSC	DSC	123	23		
W 000 27.7	145.8		319	47	.....	.....		7.2

STA 1045Z

DISTANCE SUMMARY / FF = AVERAGE FUEL FLOW (TONNES PER HOUR)
S/H
8938KM 5550SM 4826NM AV COMP P030 ESAD 4538NM TIME 0943 FF 8.1
ETA

DESCENT SPOT WIND DATA

ALT	WIND	ALT	WIND	ALT	WIND	ALT	WIND
	DIR SPD		DIR SPD		DIR SPD		DIR SPD
29000	153 / 032	21000	167 / 021	13000	168 / 016	7000	153 / 017

1ST ALTERNATE DIVERSION SUMMARY

EGSS DIST 83 FL 070 WC M006 EET 0.20 FUEL 03012
 N 51 53.1
 E 000 14.1

CO ROUTE - LHRSTN1

ROUTE DESCRIPTION

EGLL DCT BPK BKY BUSTA LOREL -DCT EGSS

Z F WT	237682	A-B TIME/FUEL	0943	78900
NET FUEL	91281	CONTGCY FUEL 2 / 2		1588
B R WT	328963	DEP ALLOWANCE		509
BURNOFF	80508	ETP B/U		0
LAND WT	248455	ARRVL ALLNC		0
		INST APP EGLL	12	1099
MIN RES	6133	XTR HOLD EGLL	0030	3052
		TANKER FUEL		0
COST INDEX	050	DIV TO EGSS	0020	3012
CRZ ALT	310	XTR HOLD EGSS		0
CRZ WIND	239 / 69	FIXED FUEL RES	0030	3121
T/C OAT	-48	TTL ENDRNCE FUEL	1115	91281

TIME/FUEL SUMMARIES FOR ZFW CHANGE

	ZFW	A-B	TIME / FUEL	BURNOFF	TTL FUEL
PLUS 1000KG OR LIMITING ZFW FL310 YNE 330 6440N 350	237682		0943 78900	80508	91281
MINUS 1000KG FL310 ISN 330 6440N 350	236682		0943 78599	80207	90946

CONTINGENCY SUMMARIES

	ZFW	A - B	TIME / FUEL	BURNOFF	TTL FUEL
LOWER LEVEL CR050 CONTGCY FUEL 2/2 FL290 YNE 310 6440N 330	237682		0943 80199	81807	92606
HIGH SPEED CR200 CONTGCY FUEL 2/2 FL310 5890N 330 6330N 350	237682		0935 80390	81998	92801
LOWER SPEED CR000 CONTGCY FUEL 2/2 FL310 ISN 330 6440N 350	237682		0946 78839	80447	91220

CRITICAL FUEL SUMMARIES

S/H KLAX -

EDTO

ENTRY YWG N56 32.57 W093 08.93 EET 03.19 ETA
 EXIT SNN N59 36.30 W011 41.92 EET 08.09 ETA

ETPID

LAX - SLC AT NORRA - 24 FUEL : ETP 7072 EXCESS 75480 REQD 15801
 KLAX TO ETP POSN N36 29.3 W114 38.3 EET 0.30 ETP ETA Z
 ETP TO LAX DIST 240 WIND CMP M032 EET 0.46
 ETP TO SLC DIST 286 WIND CMP P028 EET 0.46
 ETP CRZ FF INCR BY % FOR % OF EET FROM ETP DUE ICING CONDNS

ETPID

SLC - YWG AT ISN - 177 FUEL : ETP 10436 EXCESS 60886 REQD 30395
 KLAX TO ETP POSN N45 56.8 W106 27.4 EET 1.45 ETP ETA Z
 ETP TO SLC DIST 384 WIND CMP M029 EET 1.13
 ETP TO YWG DIST 438 WIND CMP P015 EET 1.13
 ETP CRZ FF INCR BY % FOR % OF EET FROM ETP DUE ICING CONDNS

ETPID

YWG - LAX AT 6180N - 103 FUEL : ETP 19032 EXCESS 32340 REQD 58941
 KLAX TO ETP POSN N60 12.4 W083 05.7 EET 4.04 ETP ETA Z
 ETP TO YWG DIST 772 WIND CMP M019 EET 2.22
 ETP TO YR DIST 845 WIND CMP P012 EET 2.22
 ETP CRZ FF INCR BY % FOR % OF EET FROM ETP DUE ICING CONDNS

ETPID

YR - SNN AT 6330N - 75 FUEL : ETP 24107 EXCESS 5608 REQD 85673
 KLAX TO ETP POSN N63 20.4 W032 38.6 EET 6.47 ETP ETA Z
 ETP TO YR DIST 1029 WIND CMP M000 EET 2.59
 ETP TO SNN DIST 956 WIND CMP M019 EET 2.56
 ETP CRZ FF INCR BY 1% FOR 75% OF EET FROM ETP DUE ICING CONDNS

ETPID

SNN - LHR AT LAKEY - 24 FUEL : ETP 6228 EXCESS 6627 REQD 84654
 KLAX TO ETP POSN N54 36.6 W003 15.4 EET 9.04 ETP ETA Z
 ETP TO SNN DIST 252 WIND CMP P003 EET 0.40
 ETP TO LHR DIST 239 WIND CMP M017 EET 0.40
 ETP CRZ FF INCR BY 1% FOR 99% OF EET FROM ETP DUE ICING CONDNS

ALTERNATE SUMMARIES

EGLL-EGKK 75NM FL 050 WC M012 TIME 0.19 FUEL 2959 MIN RES 6080
 EGLL DCT HOLLY WILLO DCT EGKK
 EGLL-EGCC 134NM FL 180 WC P015 TIME 0.27 FUEL 3950 MIN RES 7071
 EGLL DCT WOBUN WELIN T420 TNT DCT EGCC
 EGLL-EGPK 291NM FL 360 WC P023 TIME 0.47 FUEL 6254 MIN RES 9375
 EGLL DCT WOBUN WELIN UT420 TNT UN57 POL UN601 MARGO DCT EGPK
 EGLL-EHAM 213NM FL 230 WC P000 TIME 0.40 FUEL 5461 MIN RES 8582
 EGLL DCT CLN L620 REDFA DCT EHAM
 EGLL-EDDF 355NM FL 410 WC M018 TIME 0.58 FUEL 7843 MIN RES 10964
 EGLL DCT DVR UL9 KONAN UL607 AMASI DCT EDDF
 EGLL-EINN 324NM FL 320 WC P009 TIME 0.52 FUEL 6901 MIN RES 10022
 EGLL DCT CPT UL9 KENET UN14 PEMOB UN24 SLANY ABAGU L9 TIPUR DCT EINN
 EGLL-LFPG 201NM FL 230 WC M015 TIME 0.39 FUEL 5365 MIN RES 8486
 EGLL DCT MID Y803 SFD M605 XIDIL UM605 DPE DCT LFPG

WIND TEMP AND COMP SUMMARY			WX PROG DAY / HOUR XX / 12									
	FL140		FL220		LOWER LEVEL		PLANNED FL		HIGHER LEVEL			
POINT	WIND	TMP	WIND	COMP	FL	WIND	COMP	FL	WIND	COMP		
KLAX	24037M08		24053		29	24067		31	23070		33	24072
DAG	24037M08		24053P053		29	24067P067		31	24070P070		33	24072P072
MISEN	24037M08		24054P052		29	24066P065		31	24070P068		33	24072P069
CLARR	24037M08		24055P054		29	24065P063		31	24068P066		33	24071P068
LAS	24039M08		24057P055		29	24067P064		31	24070P067		33	24072P069
SUVIE	24038M08		24058P055		29	24069P065		31	24071P068		33	24074P070
NORRA	24037M09		24058P056		29	24070P066		31	24073P069		33	24076P072

⇓

BEN	14018M14		15014M014		33	17021M019		35	17022M020		37	18021M017
SUPIT	14018M14		15014M014		33	17023M019		35	17024M019		37	18023M016
GOW	14020M14		16021M019		33	18040M028		35	19040M027		37	19034M021
FENIK	14020M14		16021M021		33	18041M035		35	18040M034		37	19034M028
DCS	14022M13		16024M023		33	18041M037		35	18041M036		37	18035M030
LAKEY	14021M13		16024M024		33	18042M040		35	18041M039		37	18035M033
NUGRA	15019M13		16024M024		33	16041M041		35	17040M040		37	17034M033
EGLL	17016M12		17022		33	15038		35	16035		37	17029



FLIGHT PLAN HEADLINES

 PLANNED ON ROUTE LAXLHRT51 ETD 07MARXX / 0000Z

DEPT ALT / 0.00 0000Z
 DESTN ALT STN / 0.20 1015Z

EDTO DETAILS

 PLANNED TO 180 MIN EDTO

ENTER EDTO AFTER 03.19 BASED ON YWG
 EXIT EDTO AFTER 08.09 BASED ON SNN

EDTO ALTERNATE TIMINGS

 DEPARTURE TIME (ETD) 0000Z
 LATEST TIME AT LAX 0116Z
 ICING LAX / SLC % / %
 EARLIEST TIME AT SLC 0116Z
 LATEST TIME AT SLC 0257Z
 ICING SLC / YWG % / %
 EARLIEST TIME AT YWG 0258Z
 LATEST TIME AT YWG 0626Z
 ICING YWG / YJR % / %
 EARLIEST TIME AT YJR 0626Z
 LATEST TIME AT YJR 0946Z
 ICING YJR / SNN 1% / 75%
 EARLIEST TIME AT SNN 0943Z
 LATEST TIME AT SNN 0944Z
 ICING SNN / LHR 1% / 99%
 EARLIEST TIME AT LAX 0943Z
 ARRIVAL TIME (ETA) 0955Z



Computer Flight Plan Number Five

XX
COMPUTER FLIGHT PLAN
B777-300 ER
XX

PLANNED TO 120 MIN EDTO

CO ROUTE – AKLRAR1

FMS NAV DATA ACTIVE APR04MAY02 / XX

ROUTE DESCRIPTION
NZAA DCT AKLOM G594 KIWI DCT NCRG

ROUTE PROFILE
370

NZ 46 / 18	NZAA-NCRG	ETD 18APR XX – 2330Z							
		STA – 0313Z							RADIO LOG
CAPTAIN SCARLET W		BLOX FUEL .							RADIO
FREQ									
DESP JAMES COOK		A/FL TAXI FUEL .							P
ZKOKX CR050	TRK.T FW/V TMP	MNO FL	DIST	ZEET	FUELRM				S
PDA 01.5	TRK.M AW/V	GS SH	ZATA	ZETA	FUELRQ				STN / UTC

RVSM ALTIMETER CHECK CAPT: STBY: F / O:

WP NZAA			CL050DR1					
S 37 00.5								
E 174 47.5		AIREP / Z			S/H		36.3	
TOC	061.6	29032	CLB	CLB	111	16		
	041.6		409	49	.....	.....	31.4	
WP AKLOM	NZZO	.... / .....	Z					
S 35 21.5	061.6	30057M53	833	F370	90	11		
E 178 23.6	041.6		508	49	.....	.....	30.1	
WP MEXIP		.... / .....	Z					
S 31 50.0	059.3	28092M51	833	F370	392	43		
W 175 00.0	040.0		549	10	.....	.....	25.1	
WP NUPTO		.... / .....	Z					
S 28 43.8	055.7	26104M52	833	F370	319	33		
W 170 00.0	038.0		572	10	.....	.....	21.3	
WP OVTOS		.... / .....	Z					
S 25 14.0	053.2	25091M52	832	F370	340	36		
W 165 00.0	037.0		569	10	.....	.....	17.2	
TOD	051.1	24073	832	F370	208	22		
	036.0		556	34	.....	.....	14.7	

WP KIWI / Z
 S 21 32.4 051.1 25060 DSC DSC 137 20
 W 160 12.6 036.0 414 34 14.2

WP NCRG
 S 21 12.1 049.0 27009 DSC DSC 31 5
 W 159 47.7 035.0 364 34 14.0

STA 0313Z

DISTANCE SUMMARY / FF = AVERAGE FUEL FLOW (TONNES PER HOUR)
 S/H
 3015KM 1872SM 1628NM AV COMP P066 ESAD 1423NM TIME 0306 FF 7.2
 ETA

DESCENT SPOT WIND DATA

ALT	WIND	ALT	WIND	ALT	WIND	ALT	WIND
	DIR SPD		DIR SPD		DIR SPD		DIR SPD
29000	243 / 047	21000	246 / 038	13000	266 / 022	7000	274 / 012

1ST ALTERNATE DIVERSION SUMMARY

NTAA DIST 622 FL 390 WC P034 EET 1.25 FUEL 09990
 S 17 33.4
 W 149 36.7

CO ROUTE - RARPPT1

ROUTE DESCRIPTION

NCRG DCT HITI G594 MAITO AROBA TAF DCT NTAA

Z F WT	212600	A-B TIME/FUEL	0306	22271
NET FUEL	36756	CONTCY FUEL 2 / 2		446
B R WT	249356	DEP ALLOWANCE		0
BURNOFF	23367	ETP B/U		0
LAND WT	225989	ARRVL ALLNC		0
MIN RES	12943	INST APP NCRG	12	1096
		XTR HOLD NCRG		0
		TANKER FUEL		0
COST INDEX	050	DIV TO NTAA	0125	9990
CRZ ALT	370	XTR HOLD NTAA		0
CRZ WIND	300/ 57	FIXED FUEL RES	0030	2953
T/C OAT	-53	TTL ENDRNCE FUEL	0513	36756

TIME/FUEL SUMMARIES FOR ZFW CHANGE

	ZFW	A-B	TIME / FUEL	BURNOFF	TTL FUEL
PLUS 1000KG OR LIMITING ZFW FL370	213600		0306 22363	23459	36899
MINUS 1000KG FL370	211600		0306 22180	23276	36616

CONTINGENCY SUMMARIES	ZFW	A - B	TIME / FUEL	BURNOFF	TTL FUEL
LOWER LEVEL CR050 CONTGCY FUEL 2/2 FL350	212600		0308 22774	23870	37269
HIGH SPEED CR200 CONTGCY FUEL 2/2 FL350 AKLOM 370	212600		0303 22953	24049	37452
LOWER SPEED CR000 CONTGCY FUEL 2/2 FL370	212600		0309 22208	23304	36691

CRITICAL FUEL SUMMARIES S/H NZAA -

EDTO

ENTRY AKL S33 23.13 W177 45.68 EET 00.51 ETA

EXIT RAR S25 45.06 W165 42.26 EET 02.13 ETA

ETPID

AKL - RAR AT NUPTO - 142 FUEL : ETP 17623 EXCESS 5528 REQD 31228
 NZAA TO ETP POSN S30 07.8 W172 10.7 EET 1.28 ETP ETAZ
 ETP TO AKL DIST 770 WIND CMP M019 EET 2.20
 ETP TO RAR DIST 858 WIND CMP P022 EET 2.19
 ETP CRZ FF INCR BY % FOR % OF EET FROM ETP DUE ICING CONDNS

ALTERNATE SUMMARIES

NCRG-NSFA	827NM	FL 400	WC M025	TIME 1.59	FUEL 13974	MIN RES 16927
NCRG DCT PAIA	B454	TUT DCT	NSFA			
NCRG-NFFN	1321NM	FL 400	WC M038	TIME 3.14	FUEL 21844	MIN RES 24797
NCRG DCT RG	G593	NA B598	NN DCT	NFFN		
NCRG-NZAA	1628NM	FL 400	WC M047	TIME 3.58	FUEL 26299	MIN RES 29252
NCRG DCT KIWI	G594	AKLOM DCT	NZAA			

WIND TEMP AND COMP SUMMARY

WX PROG DAY / HOUR XX / 18

POINT	FL140		FL220		LOWER LEVEL		PLANNED FL		HIGHER LEVEL	
	WIND	TMP	WIND	COMP	FL	WIND COMP	FL	WIND COMP	FL	WIND COMP
NZAA	28021M06		29034		35	29063	37	29070	39	29072
AKLOM	28021M06		29033P020		35	29063P037	37	29070P041	39	29071P043
MEXIP	26024M03		27042P036		35	27103P084	37	27107P090	39	27104P090
NUPTO	26027M01		26045P042		35	26097P088	37	26103P093	39	26105P096
OVTOS	25031P00		25052P049		35	25080P078	37	24086P084	39	24089P087
KIWI	26024P01		24042P041		35	24052P052	37	23059P059	39	22066P065
NCRG	26023P01		24041		35	24049	37	22055	39	22063

FLIGHT PLAN HEADLINES

PLANNED ON ROUTE AKLRAR1 ETD 18APRXX / 2330Z

DEPT ALT / 0.00 0000Z
DESTN ALT PPT / 1.25 0413Z

EDTO DETAILS

PLANNED TO 120 MIN EDTO

ENTER EDTO AFTER 00.51 BASED ON AKL
EXIT EDTO AFTER 02.13 BASED ON RAR

EDTO ALTERNATE TIMINGS

DEPARTURE TIME (ETD) 2330Z
LATEST TIME AT AKL 0319Z
ICING AKL / RAR % / %
EARLIEST TIME AT RAR 0317Z
ARRIVAL TIME (ETA) 0248Z



Computer Flight Plan Number Six

XX
COMPUTER FLIGHT PLAN
B777-300 ER
XX

PLANNED TO 120 MIN EDTO

CO ROUTE – AKLPPT1

FMS NAV DATA ACTIVE APR04MAY02 / XX

ROUTE DESCRIPTION

NZAA DCT OLBEX G599 TEKOT AROBA DCT NTAA

ROUTE PROFILE

350

NZ 40 / 14	NZAA-NTAA	ETD 14APR XX	- 2115Z						
		STA	- 0208Z						RADIO LOG
CAPTAIN MCCA W R		BLOX FUEL	.						RADIO
FREQ		A/FL TAXI FUEL	.						P
DESP TED HENRY		FL	DIST	ZEET	FUELRM				S
ZKOKX CR050	TRK.T FW/V TMP	MNO		ZATA	ZETA	FUELRQ			STN / UTC
PDA 02.0	TRK.M AW/V	GS	SH						

RVSM ALTIMETER CHECK CAPT: STBY: F / O:

WP NZAA			CL050DR1					
S 37 00.5								
E 174 47.5		AIREP / Z			S/H	.....	47.2	
TOC	068.1	31026	CLB	CLB	111	17		
	048.0		400	76	.....	.....	41.9	
WP OLBEX	NZZO	.... / ..... Z						
S 35 41.6	068.1	30033M49	833	F350	90	10		
E 178 36.4	048.0		505	76	.....	.....	40.6	
WP IGETO		.... / ..... Z						
S 33 05.5	065.7	27068M47	833	F350	353	39		
W 175 00.0	046.0		549	10	.....	.....	35.7	
WP MUKLU		.... / ..... Z						
S 30 42.2	062.1	24089M47	832	F350	293	30		
W 170 00.0	044.0		576	10	.....	.....	31.9	
WP EMRAD		.... / ..... Z						
S 27 59.4	059.5	23106M47	831	F350	308	32		
W 165 00.0	042.0		589	10	.....	.....	28.1	
WP SOSPI	NTTT	.... / ..... Z						
S 22 57.1	057.0	24080M46	830	F350	528	55		
W 157 00.0	041.0		566	10	.....	.....	21.4	

TOD	053.6	31031	828	F350	388	47	
	039.0		496	18	.....	.....	15.8
WP TEKOT		.... / ..... Z					
S 18 48.3	053.6	27056	DSC	DSC	20	3	
W 151 14.4	039.0		392	18	.....	.....	15.7
WP AROBA		.... / ..... Z					
S 18 03.7	050.8	36024	DSC	DSC	70	13	
W 150 17.5	037.6		337	97	.....	.....	15.3
WP NTAA							
S 17 33.4	052.3	31015	DSC	DSC	49	8	
W 149 36.7	039.3		353	97	.....	.....	15.1

STA 0208Z

DISTANCE SUMMARY / FF = AVERAGE FUEL FLOW (TONNES PER HOUR)
S/H
4093KM 2542SM 2210NM AV COMP P053 ESAD 1984NM TIME 0414 FF 7.5
ETA

DESCENT SPOT WIND DATA

ALT	WIND	ALT	WIND	ALT	WIND	ALT	WIND
	DIR SPD		DIR SPD		DIR SPD		DIR SPD
29000	019 / 020	21000	014 / 017	13000	338 / 015	7000	312 / 013

1ST ALTERNATE DIVERSION SUMMARY

NCRG DIST 620 FL 380 WC M005 EET 1.31 FUEL 10988
S 21 12.1
W 159 47.7

CO ROUTE - PPTRAR1

ROUTE DESCRIPTION

NTAA DCT MAITO G594 RG DCT NCRG

Z F WT	218500	A-B TIME/FUEL	0414	32082
NET FUEL	47822	CONTG CY FUEL 2 / 2		642
B R WT	266322	DEP ALLOWANCE		0
BURNOFF	33184	ETP B/U		0
LAND WT	233138	ARRVL ALLNC		0
		INST APP NTAA	12	1102
MIN RES	13996	XTR HOLD NTAA		0
		TANKER FUEL		0
COST INDEX	050	DIV TO NCRG	0131	10988
CRZ ALT	350	XTR HOLD NCRG		0
CRZ WIND	300 / 33	FIXED FUEL RES	0030	3008
T/C OAT	-49	TTL ENDRNCE FUEL	0627	47822

TIME/FUEL SUMMARIES FOR ZFW CHANGE

	ZFW	A-B	TIME / FUEL	BURNOFF	TTL FUEL
PLUS 1000KG OR LIMITING ZFW FL350	219500		0414 32185	33287	47976
MINUS 1000KG FL350	217500		0415 31980	33082	47669

CONTINGENCY SUMMARIES	ZFW	A - B	TIME / FUEL	BURNOFF	TTL FUEL
LOWER LEVEL CR050 CONTGCY FUEL 2/2 FL330	218500		0416 32985	34087	48743
HIGH SPEED CR200 CONTGCY FUEL 2/2 FL350	218500		0410 32810	33912	48564
LOWER SPEED CR000 CONTGCY FUEL 2/2 FL350	218500		0418 32001	33103	47739

CRITICAL FUEL SUMMARIES S/H NZAA -

EDTO

ENTRY AKL S34 04.84 W177 17.47 EET 00.51 ETA

EXIT RAR S27 16.87 W163 47.14 EET 02.15 ETA

ETPID

AKL - RAR AT MUKLU - 42 FUEL : ETP 17778 EXCESS 15056 REQD 32766
 NZAA TO ETP POSN S31 03.3 W170 41.8 EET 1.32 ETP ETAZ
 ETP TO AKL DIST 512 WIND CMP P001 EET 2.17
 ETP TO RAR DIST 565 WIND CMP P017 EET 2.16
 ETP CRZ FF INCR BY 1% FOR 25% OF EET FROM ETP DUE ICING CONDNS

ETPID

RAR - PPT AT TEKOT - 214 FUEL : ETP 8180 EXCESS 10460 REQD 37362
 NZAA TO ETP POSN S21 00.5 W154 13.6 EET 3.27 ETP ETAZ
 ETP TO RAR DIST 306 WIND CMP M028 EET 0.58
 ETP TO PPT DIST 333 WIND CMP M000 EET 0.57
 ETP CRZ FF INCR BY 1% FOR 25% OF EET FROM ETP DUE ICING CONDNS

ALTERNATE SUMMARIES

NTAA-NSFA 1315NM FL 400 WC P004 TIME 2.58 FUEL 21017 MIN RES 24025
 NTAA DCT OPERU G224 TUT DCT NSFA
 NTAA-NFFN 1894NM FL 400 WC P008 TIME 4.24 FUEL 30069 MIN RES 33077
 NTAA DCT ATURE B599 NN DCT NFFN

WIND TEMP AND COMP SUMMARY

WX PROG DAY / HOUR XX / 12

POINT	FL140		FL220		LOWER LEVEL		PLANNED FL		HIGHER LEVEL	
	WIND	TMP	WIND	COMP	FL	WIND COMP	FL	WIND COMP	FL	WIND COMP
NZAA	35018M05		29030		33	29044	35	29050	37	29053
OLBEX	35018M05		29030P021		33	29044P030	35	29050P034	37	29053P039
IGETO	02002M05		23020P020		33	24071P070	35	25083P083	37	25091P090
MUKLU	19015M06		22038P033		33	23087P084	35	23095P094	37	23103P102
EMRAD	21023M06		23041P040		33	22104P097	35	22114P106	37	22122P116
SOSPI	29035P01		29057P032		33	28059P044	35	28054P035	37	30049P020
TEKOT	33020P02		35024M012		33	34017M005	35	34018M007	37	36020M012
AROBA	33018P02		01020M014		33	00019M013	35	01020M014	37	01020M015
NTAA	34015P02		02017		33	01022	35	02022	37	02021

FLIGHT PLAN HEADLINES

PLANNED ON ROUTE AKLPPT1 ETD 18APRXX / 2115Z

DEPT ALT / 0.00 0000Z
DESTN ALT RAR / 1.31 0312Z

EDTO DETAILS

PLANNED TO 120 MIN EDTO

ENTER EDTO AFTER 00.51 BASED ON AKL
EXIT EDTO AFTER 10.14 BASED ON RAR

EDTO ALTERNATE TIMINGS

DEPARTURE TIME (ETD) 2115Z

LATEST TIME AT AKL 0104Z

ICING AKL / RAR 1% / 25%

EARLIEST TIME AT RAR 0103Z

LATEST TIME AT RAR 0140Z

ICING RAR / PPT 1% / 25%

EARLIEST TIME AT PPT 0140Z

ARRIVAL TIME (ETA) 0141Z

