

**Delivery Report & Logs
Never Again II
John Q. Boater, Owner
Nordhavn 5732
Dana Point CA to Fort Lauderdale FL**

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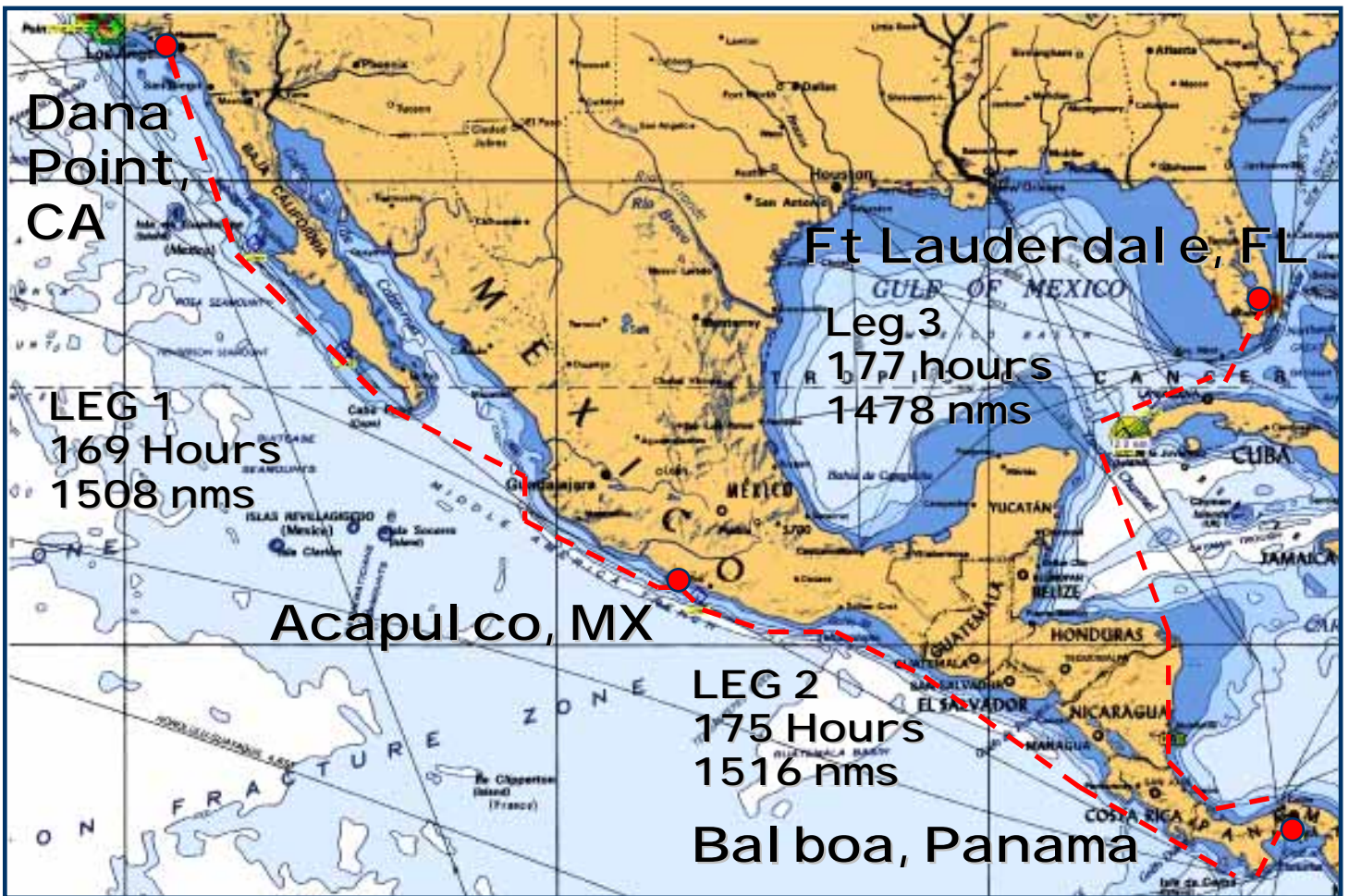


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Introduction

This report serves three primary purposes:

1. Describes delivery activities including daily log
2. Culminates expenses associated with this delivery
3. Provides observations and recommendations for future operation of Never Again II

There were two logs kept aboard while underway:

1. Hand written hourly log filled in by the watch officer at the top of every hour. This log provided basic information on location, course, speed, and trip log. Intent of this log was to provide dead reckoning information in the event of an electronic failure or human error such as mistakenly switching autopilot to Standby mode.
2. An electronic log filled out by ships captain Peter Pisciotta. This log has approximately 12-15 entries each day and includes extensive information from the main engine operation. From this log, important operation characteristics can be derived such as accurate long range fuel economy, speed versus RPM curve, and engine systems operation characteristics.

Voyage Statistics

Trip Origin	Dana Point, California
Trip Destination	Ft. Lauderdale, Florida
Start date and time	1815Z - 1115 hrs (local) 10 FEB 2004
End date and time	1845Z - 1345 hrs (local) 6 MAR 2004
Hours (total and underway)	599.5 hours (25 days) as follows: 521.2 hours underway (87%) 78.3 hours in-port (13%)
Distance covered	4497 nautical miles
Average Speed	8.64 kts (underway distance/engine hours) 7.49 kts (start to finish - including stops)
Engine hours	521.2 hours Main Engine 224.5 hours Generator 15.3 hours Wing Engine
Gallons Diesel	2964 Main Engine 224.5 Generator (estimate 1 gph) 15.3 Wing Engine (estimate 1 gph) 3205.8 Gallons Total
Median Main Engine RPM	1430

Voyage Summary

	TOTAL: Dana Point to Ft Lauderdale	Leg 1 Dana Point to Acapulco	Leg 2 Acapulco to Balboa, Panama	Leg 3 Balboa, Panama to Ft Lauderdale FL
Hours	521	169	175	177
Distance (nms)	4497	1508	1516	1478
Average Speed	8.64 kts	8.88 kts	8.66 kts	8.63 kts
Fuel Consumption	2964 Gallons 5.69 gph	1007 gallons 5.93 gph	976 gallons 5.57 gph	981 gallons 5.54 gph

Equipment Maintenance

SUMMARY

Only routine maintenance required. Please see "OBSERVATIONS AND RECOMMENDATIONS" Section for more complete detail.

Main Engine

Engine room was checked visually every 60-90 minutes. A thorough inspection was completed ever 4 hours including checking for chafe, leaks, heat, etc. Instruments were scanned and logged approximately every 60 minutes. While operating, oil was checked. No make-up oil was added, though approximately 1-1/2 quarts were estimated to be consumed per leg. Oil was change prior to departing Dana Point, and again at 430 hours in Panama.

Engine was not shut down while underway. Underway oil check seemed reasonably accurate, and was confirmed in Acapulco. See pencil marks on grey plastic electrical box, bulkhead to starboard of engine for hand-drawn reference guide (approx 2" above last digit in serial number on dipstick).

Generator

During first two legs, generator was run sparingly, at night for air conditioning during last few days since leaving doors open generated heavy condensation on interior surfaces at night.

On Leg 3, heavy winds and associated spray prevented opening of any ports/doors. Consequently, generator was run almost non-stop for air conditioning. Generator was shut down every 8 hours to check oil and coolant. No make-up oil was necessary. Oil was changed in Panama at 107 engine hours (lower hour meter mounted on Generator).

NOTE: The lower instrument panel was added after initial installation. Water temperature read very low (140 degrees). Possible that temperature gauge sending unit is not properly matched to twin-gauge readout. May need different sending unit for this application.

Wing Engine

15 hours of use, 10 of which was during Panama Canal locking procedures. No make-up oil added. Oil was NOT changed – should still have John Deere break-in oil. Recommended change at 100 hours, 250 hours thereafter.

Watermaker

Ran watermaker approximately 40 hours. Noted minor leaks on hi-pressure lines. Tightened somewhat but cautiously as they connect to membrane canister. Worried about over-tightening while underway (sudden lurch) so recommend monitor.

Steering gear

Daily check of rudder and hydraulic lines. Some slight leakage near rudder deemed to be normal. Steering fluid sight gauge on upper helm revealed approximately ¾" lowering of steering fluid level. Did not replenish as was unsure of recommended oil type.

Other

Floorboards were lifted and bilges visually inspected daily. Packing gland on main shaft inspected for excess heat every few hours during first several days, then daily thereafter (no adjustment necessary).

Observations & Recommendations

SUMMARY

For a new boat, even one built to Nordhavn's high standards, this vessel has surprisingly few glitches, the fewest I have ever noted on a new boat. The following is a running list of items noted and recommendations:

	Item	Action	Description
1	Flybridge lights	Needs attention	Was not able to find switch to turn on overhead lights mounted underneath bimini. There are two spare switches near upper companionway that do not actuate anything. Either proper breaker was not turned on or wiring needs to be checked (aft facing deck light works fine)
2	Fans	Recommendation	Individual fans in each stateroom would cut down on need for A/C. Hella fans seem to be popular on higher quality vessels.
4	Racor Vacuum Gauge	Monitor	Gauge on Racor manifold started to read high – close to 10 hg vacuum. Changed filter in Acapulco, though vacuum came up again on next leg. Swapped canister lid for generator lid w/gauge. Reads in normal range. May need to replace manifold gauge or better yet, install gauge on each canister – best is one with green-yellow-red indicator field for quick visual inspection
5	Use 10 micron Racors instead of 2 micron.	Recommendation – verify with mechanic	John Deere uses dual media fuel filter element – 10 micron outer jacket around a 2 micron inner core. I believe they recommend against using 2 micron primary filters, recommending instead 10 micron filters.
6	Stowed Engine Room Spares	See page in Spiral Notebook (handwritten log) for map of spares	Did not want several boxes floating around, especially since most were packing material. Stowed gear in logical locations. Hope this is okay
7	Lube gun		Delivered spares list shows lube oil gun. Spare tubes were found, but no gun.
8	Wrong spare main engine belt	Immediate attention	The main engine belt provided as a spare will not fit the alternator pulley (belt is too wide). Suspect spare 4045 belt will fit so continued on (only alternator would be affected – did not delay departure since GenSet could provide back-up) Recommend stocking proper spare belt or verifying 4045 belt will work.
9	Difficulty removing belt guard – main engine	Informational – solved	Needed stubby ratchet drive to remove several bolts holding cage in place. Purchased stubby ratchet before departure.
10	Asko clothes dryer	Not operational	Could not get the dryer to work. Will operate only momentarily while button is depressed

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11	Dissolvable toilet paper	Recommendation	Noticed standard household TP in one of the bathrooms. Recommend using dissolvable toilet paper only to keep it from accumulating in holding tank. Also, avoid use of bleach and pine-sol products in toilets as it eventually dissolves rubber seals.
12	Fuel tank fill	Immediate Attention	In Dana Point, had difficulty getting fuel into PORT AFT tank – kept vapor locking and backing up, shutting off pump. Took over 90 minutes to take on 400 gallons. In Acapulco, had worse problem with STBD AFT – could get NO fuel into tank. Slowly filled each in Panama (2-1/2 hours to fuel)
14	Courtesy Flag Halyard	Recommendation	Install courtesy flag halyard on stbd side
15	1425 RPM “Sweet Spot”	Recommendation	Started trip at 1450 RPM. Found 1425 smoother, more fuel efficient, and only slight loss of speed. Consistent 219 mile days (9.125 kts) at 5.8 gph.
16	Refrigerator Icemaker Leak	Monitor	Noted leak – traced to solenoid valve for icemaker on refrigerator (did not use on trip). Slightly tightened fitting (careful – it’s plastic) and did not re-install on mount as it appeared this caused initial leak. Did not leak for 7 days thereafter – monitor
17	Main engine oil leak	Monitor	3/1/2004 0900 engine check. Noticed small leak beneath engine. Bell housing and/or engine sump drain plug. Recommend monitor
19	Bilge pump pick-up strainer	Recommendation	Noted pick-up hose beneath prop shaft is not resting flush - Need to rotate slightly so it will pick up more water
20	Watermaker leak	Attention	Noted leaks on several of the hi-pressure lines of the watermaker. Tightened output to hi-pressure pump, seemed pretty tight already but leak stopped. Did not want to risk over-tightening hoses on membrane (underway, plastic fittings, etc). Monitor.
21	Starboard Stabilizer noise	Monitor – needs attention	3/3/2004 – Starboard stabilizer started making very slight “knocking” noise. Could not remove stairs to fully inspect. Monitor
22	Engine room stairs	Needs attention	RE: Item 21 – unable to remove stairs (engine room latch dog interferes, cannot get screwdriver on latch to remove dog – you’d have to see it to understand). This area needs access, perhaps it just takes a special “twist” of the stairs to remove.
23	Sat Compass	Monitor	0500 3/5/2004 - Lost sat compass in heavy chop. Power cycled unit (did not work) then switched to fluxgate. Appears to be working alter in the day, but may want to monitor
24	Coolant Leak – Main engine	Monitor	Noted very small trace of coolant on coolant pump (STBD side, inboard of Alternator)
25	¾” X 24” board for U-Line Freezer?	????	During heavy seas 3/4/2004, a small board appeared at top of U-line freezer, between freezer and counter above. Freezer had been shut down for several days – could not determine origin.

APPENDICES – Machinery Logs

APPENDIX 1a – Leg 1 Trip Log (Dana Point to Acapulco)

Date	UTC	Local Time	Latitude	Longitude	Speed (GPS)	Calc'd GPH	Engine Hours	Fuel Consumed (Gal)	Fuel Used (Gal)	Coolant Temp (F)	Fuel Temp (F)	Fuel Pressure (psi)	Oil Press (psi)	Fuel Rate (gph)	Battery Voltage	RPM	Trans Press (psi)	Pyrometer (F)	Trip Log (Started 2/12/2004)	Comments
2/10/2004	1915	1115	Dana Point CA				83.8	371.4				TRIP START							11	BEGIN ON PORT AFT TANK
	2400	1600	32 46.6	117 19.9	9.6	5.8	88.9	400.5	29.1	181	163	82	44	6.0	13.10	1450	285	400		
2/11/2004	400	2000	32 12.7	117 04.9	9.2	5.5	92.8	422.3	21.8	181	165	81	44	6.0	13.10	1450	285	400		
	0800	0000	31 37.7	116 49.4	9.4	6.1	96.7	445.7	23.4	181	165	81	43	6.0	13.10	1450	285	400		
	1805	1005	30 11.9	116 05.2	8.6	5.9	106.7	505.1	59.4	181	169	82	43	6.1	13.10	1450	285	400		
	1900	1100	30 06.2	116 03.0	8.6	6.1	107.6	510.9	5.8	183	169	81	43	6.0	13.20	1455	290	420		
	2000	1200	29 58.1	116 60.0	9.0	5.8	108.6	516.7	5.8	181	169	82	44	6.1	13.20	1455	290	425	229	
	2300	1500	29 33.1	115 50.6	9.0	6.0	111.6	534.8	18.1	181	171	82	43	6.6	13.05	1450	290	425		
	0030	1630	29 20.1	115 45.8	9.0	6.7	113.0	544.2	9.4	181	171	82	43	6.2	13.00	1450	290	425		
2/12/2004	0100	1700	29 15.6	115 44.2	8.8	5.3	113.6	547.4	3.2	183	171	82	43	6.2	13.00	1450	290	425		
	0300	1900	28 57.8	115 37.6	9.0	6.2	115.6	559.8	12.4	181	171	81	43	6.4	12.90	1450	290	425		
	0400	2000	28 49.7	115 39.6	9.2	5.9	116.6	565.7	5.9	183	171	82	43	6.3	12.95	1450	290	425		
	0500	2100	28 40.7	115 31.3	9.2	6.4	117.6	572.1	6.4	181	172	82	43	6.2	13.05	1450	290	425		
	0600	2200	28 31.3	115 27.8	9.0	6.3	118.7	578.7	6.6	183	172	82	43	6.2	13.15	1450	290	425		
	0700	2300	28 23.1	115 24.8	9.2	6.5	119.6	584.9	6.2	183	172	81	43	6.4	13.10	1450	290	425		
	0800	0000	28 14.8	115 25.7	8.8	6.6	120.6	591.2	6.3	183	172	82	43	6.4	13.15	1450	290	425		
	0820	620	27 29.9	114 59.2	9.0	6.3	127.0	631.8	40.6	183	174	81	43	6.3	13.15	1450	290	425		
	0830	630	Switched Fuel Tanks		6.0		43.2	260.4		Switched from Port Aft to Starboard Aft Fuel Tank									395	PORT AFT to STBD AFT tank
	1600	0800	27 23.1	114 46.5	9.4	6.3	128.6	641.9	10.1	181	162	82	43	6.4	12.95	1450	290	425		
	1700	0900	27 17.3	114 37.7	8.2	6.4	129.7	649.3	7.4	181	163	82	43	6.4	12.90	1450	290	425		
	1800	1000	27 11.9	114 31.2	8.9	5.7	130.7	655.0	5.7	181	163	82	43	6.1	12.95	1450	280	420		
	1900	1100	27 06.8	115 22.6	9.2	5.8	131.7	660.8	5.8	181	163	82	43	6.1	12.90	1450	280	420		
	2000	1200	26 59.1	114 12.3	8.6	6.2	133.1	669.5	8.7	183	165	81	43	6.0	12.90	1450	280	420	452	
	2100	1300	26 48.7	114 03.2	9.3	6.4	134.5	678.4	8.9	181	165	82	43	5.9	13.05	1450	280	420		
2/13/2004	0000	1600	26 32.3	113 49.9	9.8	5.7	136.7	690.9	12.5	183	165	82	43	6.0	13.00	1450	280	420		
	0100	1700	26 25.0	113 44.0	9.5	6.3	137.6	696.6	5.7	183	167	82	43	6.3	12.95	1450	280	420	500	Began noting trip log
	0400	2000	26 01.8	113 25.4	9.6	6.0	140.6	714.5	17.9	181	167	82	43	6.2	13.05	1450	280	420	529	
	0500	2100	25 53.3	113 18.5	9.2	6.0	141.7	721.1	6.6	181	167	81	43	6.2	13.15	1450	280	420	539	
	0600	2200	25 44.5	113 13.8	9.6	6.2	142.7	727.3	6.2	181	167	83	43	6.0	13.10	1450	285	420	549	
	0700	2300	25 37.5	113 08.4	9.3	6.1	143.6	732.8	5.5	181	167	81	43	6.1	13.15	1450	285	420	558	
	0800	0000	25 23.0	113 02.6	9.0	5.2	144.6	738.0	5.2	183	169	81	43	6.3	13.10	1450	285	425	567	
	1400	0620	24 41.7	112 25.6	9.3	6.2	150.9	776.9	38.9	183	171	81	43	6.2	13.05	1450	285	420	626	

Date	UTC	Local Time	Latitude	Longitude	Speed (GPS)	Calc'd GPH	Engine Hours	Fuel Consumed (Gal)	Fuel Used (Gal)	Coolant Temp (F)	Fuel Temp (F)	Fuel Pressure (psi)	Oil Press (psi)	Fuel Rate (gph)	Battery Voltage	RPM	Trans Press (psi)	Pyrometer (F)	Trip Log (Started 2/12/2004)	Comments
	1600	0800	24 32.5	112 14.0	8.6	6.4	152.5	787.2	10.3	183	171	82	44	6.8	12.95	1524	285	420	640	STBD AFT to PORT FWD tank
	1735	0900	24 23.5	112 01.8	8.9	6.4	154.1	797.5	10.3	181	171	83	43	6.2	13.05	1450	290	420	654	
	1800	1000	24 20.9	111 58.4	8.8	5.6	154.6	800.2	2.7	181	171	81	44	6.4	12.95	1450	290	420	658	
	1907	1107	24 14.7	111 50.0	8.7	5.8	155.8	806.9	6.7	181	171	82	44	6.2	12.90	1450	280	420	668	
	2000	1200	24 10.3	111 44.2	8.9	6.4	156.5	811.7	4.8	181	171	83	44	6.2	13.00	1450	280	420	675	
	2100	1300	24 04.3	111 36.4	8.9	6.0	157.5	817.7	6.0	183	171	83	44	5.9	12.85	1450	280	420	684	
	2200	1400	23 58.3	111 28.6	9.3	5.7	158.6	823.7	6.0	183	171	83	44	5.9	12.85	1450	280	420	694	
	2300	1500	23 41.9	111 20.2	9.5	5.8	159.6	829.8	6.1	183	172	83	44	6.0	12.85	1450	280	420	704	
2/14/2004	0000	1600	23 46.3	11 12.9	9.3	5.8	160.5	835.0	5.2	183	172	83	44	6.0	13.20	1450	280	420	713	
	0100	1700	23 40.4	111 05.0	9.0	6.5	161.5	841.5	6.5	181	162	82	43	6.2	12.95	1450	280	420	722	
	0500	2100	23 33.9	110 34.9	7.5	4.3	165.6	859.0	17.5	183	163	81	42	5.4	13.15	1390	280	420	751	Throttled back - head seas
	0600	2200	23 32.8	110 26.5	8.0	5.6	166.6	864.6	5.6	183	165	81	43	6.0	13.20	1450	285	420	759	hugging coastline near Todos Santo
	0700	2300	23 27.8	110 19.9	8.6	5.7	167.6	870.3	5.7	181	167	80	43	6.0	13.15	1450	285	420	767	
	0800	0000	23 19.7	110 14.9	8.6	5.5	168.7	876.4	6.1	183	167	81	43	6.0	13.10	1450	285	420	776	
	1500	0700	22 48.1	109 30.5	9.2	6.0	175.6	917.5	41.1	181	171	80	43	6.3	12.90	1450	295	420	839	Trans Pressure up a little - monitor
	1700	0900	22 50.3	109 13.3	6.4	5.6	177.6	928.8	11.3	178	167	81	37	3.8	13.00	1150	290	350	855	Slow bells - 8' seas, 25 kts wind on p
	1800	1000	22 53.6	109 07.2	5.9	3.5	178.7	932.7	3.9	180	165	80	37	3.7	13.00	1150	290	350	861	
	1900	1100	22 57.3	109 02.8	5.9	3.8	179.6	936.1	3.4	180	167	80	38	3.8	13.05	1150	290	350	867	
	2000	1200	22 51.3	108 53.7	9.0	5.9	180.9	943.5	7.4	183	172	81	43	6.7	13.05	1450	290	420	875	
	2300	1500	22 35.4	108 33.5	9.0	6.0	183.6	960.1	16.6	183	174	81	43	6.0	13.00	1450	290	420	903	
2/15/2004	0000	1600	22 29.4	108 25.9	8.8	6.2	184.6	966.3	6.2	181	174	81	42	6.2	13.00	1450	290	420	912	
	0100	1700	22 23.9	108 18.9	8.6	6.2	185.6	972.2	5.9	183	174	81	43	6.2	12.90	1450	290	420	920	
	0300	1900	22 13.1	108 05.2	8.5	6.0	187.5	983.9	11.7	183	176	80	43	6.2	12.95	1450	290	420	937	
	0500	2100	22 01.0	107 49.9	9.2	6.0	189.6	996.6	12.7	183	176	81	42	6.2	13.00	1450	290	420	956	
	0600	2200	21 55.3	197 42.7	9.0	6.1	190.6	1002.4	5.8	183	178	80	42	6.0	13.10	1450	290	420	965	
	0700	2300	21 49.2	107 35.0	9.0	6.2	191.6	1008.9	6.5	183	178	79	43	6.1	13.10	1450	290	420	974	
	0800	0000	21 43.6	107 27.9	9.0	6.2	192.6	1014.8	5.9	183	178	79	42	6.0	13.05	1450	290	420	983	
	1330	0530					198.0	1048.0												PORT FWD to STBD AFT
	1500	0700	21 02.0	106 35.5	9.0	6.1	199.6	1057.3	42.5	181	165	81	43	6.0	12.95	1460	290	420	1047	
	1700	0900	21 49.5	106 20.1	9.2	6.3	201.6	1070.2	12.9	1832	167	80	42	6.3	12.85	1460	290	420	1065	
	1800	1000	20 44.0	106 13.2	9.3	6.1	202.6	1076.0	5.8	183	167	81	43	6.4	12.90	1460	290	420	1075	
	1900	1100	20 37.8	106 05.4	9.8	6.0	203.6	1082.0	6.0	183	169	80	43	5.8	12.85	1460	290	420	1084	
	2000	1200	20 31.7	105 57.6	9.5	6.3	204.5	1088.0	6.0	183	169	81	42	6.1	12.85	1460	290	420	1094	
	2200	1400	20 18.3	105 42.3	9.6	5.9	206.6	1100.1	12.1	181	169	81	42	6.2	12.95	1460	290	420	1114	
2/16/2004	0000	1600	20 01.5	105 31.7	8.9	6.1	208.7	1113.0	12.9	181	171	81	42	6.1	12.80	1460	290	420	1133	
	0100	1700	19 54.6	105 27.5	8.8	5.8	209.6	1118.2	5.2	181	172	80	42	6.1	12.90	1460	290	420	1141	

Date	UTC	Local Time	Latitude	Longitude	Speed (GPS)	Calc'd GPH	Engine Hours	Fuel Consumed (Gal)	Fuel Used (Gal)	Coolant Temp (F)	Fuel Temp (F)	Fuel Pressure (psi)	Oil Press (psi)	Fuel Rate (gph)	Battery Voltage	RPM	Trans Press (psi)	Pyrometer (F)	Trip Log (Started 2/12/2004)	Comments
	0200	1800 19 46.9	105 22.4		9.0	6.0	210.6	1124.2	6.0	183	172	80	42	6.1	13.00	1455	290	420	1151	
	0500	2100 19 26.0	105 06.8		8.5	6.0	213.5	1141.8	17.6	183	174	80	43	6.2	13.05	1455	290	420	1177	
	0600	2200 19 18.3	105 01.3		8.2	6.4	214.6	1148.5	6.7	183	174	79	43	6.5	13.15	1455	290	420	1186	
	0700	2300 19 12.8	104 54.9		8.5	5.9	215.6	1154.4	5.9	183	174	80	42	6.0	13.00	1455	290	420	1194	
	0800	0000 19 08.7	104 47.9		7.8	6.0	216.6	1160.4	6.0	183	174	79	43	6.4	13.05	1455	290	420	1202	
	1400	0600 18 49.8	104 05.7		7.6	6.0	222.6	1196.2	35.8	183	176	80	43	5.9	12.95	1450	290	420	1246	
TIME CHANG	1500	0800 18 45.0	103 57.7		8.3	6.0	223.6	1202.5	6.3	183	178	79	43	6.0	13.00	1450	290	420	1255	MOVE CLOCK 1 HOUR FWD.
	1600	0900 18 41.7	103 49.6		8.5	6.0	224.6	1208.5	6.0	183	178	80	43	6.2	12.85	1450	290	420	1264	
	1700	1000 18 35.3	103 44.5		8.8	5.8	225.6	1214.0	5.5	183	178	79	43	6.2	13.05	1455	290	420	1272	
	1800	1100 18 28.0	103 37.0		9.8	6.2	226.6	1220.5	6.5	183	180	79	43	6.1	12.90	1455	290	420	1282	
	1900	1200 18 20.4	103 31.8		9.2	6.0	227.6	1226.2	5.7	183	180	79	43	6.0	13.00	1455	290	420	1291	
	2000	1300 18 14.8	103 23.2		8.5	5.7	228.6	1232.2	6.0	183	180	79	43	6.2	12.95	1455	290	420	1300	
	2100	1500 18 11.8	103 15.5		8.0	6.0	229.6	1238.2	6.0	183	176	81	42	5.9	13.00	1455	290	420	1309	STBD AFT to PORT AFT
	2200	1600 18 09.5	103 06.8		9.0	6.0	230.6	1243.9	5.7	183	171	81	43	5.9	13.00	1455	290	420	1318	
	0000	1800 18 03.1	102 47.2		9.5	5.6	232.7	1255.7	11.8	183	172	81	43	6.1	13.00	1460	290	420	1337	
	0200	2000 17 58.5	102 29.2		9.3	5.9	234.6	1267.2	11.5	183	172	80	43	5.7	13.00	1455	290	420	1355	
	0300	2100 17 54.4	102 20.6		9.6	6.1	235.6	1273.0	5.8	183	172	82	43	6.1	13.00	1460	290	420	1364	
	0400	2200 17 49.6	102 11.5		9.0	6.0	236.6	1279.3	6.3	183	174	81	43	6.4	13.05	1460	290	420	1374	
	0500	2300 17 44.9	102 02.5		9.1	5.8	237.7	1285.7	6.4	183	174	81	42	6.0	13.10	1460	290	420	1384	
	0600	0000 17 41.2	101 55.5		9.2	6.1	238.5	1290.6	4.9	183	174	81	43	6.0	13.10	1460	290	420	1392	
	1400	0800 17 08.0	100 48.6		8.7	6.0	246.7	1339.2	48.6	183	178	81	43	6.0	12.95	1460	290	420	1464	
	1500	0900 17 05.1	100 40.4		8.5	6.0	247.7	1345.2	6.0	183	178	80	42	6.2	12.90	1460	290	420	1473	
	1600	1000 17 02.1	100 31.9		9.3	6.4	248.6	1351.0	5.8	183	178	81	43	6.2	13.00	1460	290	420	1481	
	1700	1100 16 58.9	100 22.7		9.2	5.8	249.6	1357.1	6.1	183	178	81	43	6.0	13.00	1460	290	420	1491	
	1800	1200 16 55.8	100 14.0		9.2	6.1	250.6	1362.9	5.8	183	180	79	42	6.2	12.95	1460	290	420	1499	
	2000	1400 16 49.9	99 56.2		9.0	6.2	252.6	1375.3	12.4	183	180	81	43	6.2	12.95	1460	290	420	1518	Acapulco
	2100	1500					253.5	1378.1		ANCHOR DOWN - ACAPULCO HARBOR										
2/18/2004	1300									Comprehesive Engine Check - added 1-1/2 qts oil, 2 qt coolant (none used, just topped off), changed PORT racor.										

APPENDIX 1b – Leg 1 Trip Log (Acapulco to Panama City)

Date	UTC	Local Time	Latitude	Longitude	Speed (GPS)	GPH	Engine Hours	METER: Fuel Consumed (Gal)	CALC'd Fuel Used (Gal)	Coolant Temp (F)	Fuel Temp (F)	Fuel Pressure (psi)	Oil Press (psi)	Fuel Rate (gph)	Battery Voltage	RPM	Trans Press (psi)	Pyrometer (F)	Trip Log (Started 2/12/2004)	Comments	
2/19/2004	1200	0600	Acapulco Mexico				255.5	1378.1	0.0	TRIP START										1528	Start on PORT AFT
	1300	0700	16 41.8	99 47.0	8.7	9.2	256.9	1390.5	12.4	183	172	81	42	6.3	12.70	1460	290	240C	1539		
	1400	0800	16 38.4	99 39.6	8.6	6.6	257.8	1396.4	5.9	183	172	79	42	6.3	12.75	1460	290	240C	1547		
	1500	0900	16 34.9	99 31.5	8.4	6.2	258.8	1402.9	6.5	183	171	80	43	6.3	12.75	1460	290	240C	1556		
	1700	1100	16 28.0	99 15.3	9.0	6.5	260.8	1415.6	12.7	183	171	79	42	6.3	12.75	1450	290	240C	1573		
	1800	1200	16 24.3	99 06.6	9.0	6.0	261.8	1421.9	6.3	183	171	80	42	6.1	12.75	1450	290	240C	1582	Noted small fuel weep near transfer manifold	
	2100	1500	16 13.4	98 41.1	8.1	6.5	264.7	1440.3	18.4	183	172	80	42	6.2	13.00	1460	290	240C	1609		
	2300	1700	16 07.0	98 26.3	8.0	5.8	266.8	1452.4	12.1	183	172	79	42	6.2	13.00	1450	290	240C	1625		
	0000	1800	16 03.3	98 17.7	8.7	6.5	267.8	1459.2	6.8	183	172	80	42	6.2	13.00	1450	290	240C	1634		
	0100	1900	16 00.4	98 09.5	8.0	6.1	268.8	1465.0	5.8	182	172	81	42	6.2	13.05	1450	290	240C	1642		
	0300	2100	15 55.7	97 51.3	9.6	6.2	270.8	1477.8	12.8	183	174	79	42	6.4	12.95	1450	290	240C	1660		
	0400	2200	15 53.5	97 42.6	9.3	6.3	271.7	1483.5	5.7	183	174	80	42	6.2	12.85	1450	290	240C	1669		
	0500	2300	15 51.2	97 33.3	9.4	6.2	272.7	1489.7	6.2	183	174	80	42	6.2	12.85	1450	290	240C	1678		
2/20/2004	0600	0000	15 48.9	97 23.6	9.7	6.6	273.7	1496.0	6.3	183	174	80	42	6.1	12.85	1450	290	240C	1687		
	1200	0600	15 37.0	96 22.4	10.2	6.2	279.7	1533.7	37.7	183	176	80	42	6.2	12.70	1450	290	240C	1746		
	1300	0700	15 39.7	99 11.8	10.7	6.2	280.7	1539.9	6.2	181	174	81	42	6.3	12.85	1450	290	240C	1757	Transfer manifold fuel weep stopped	
	1400	0800	15 44.9	96 01.7	10.3	6.1	281.8	1546.6	6.7	181	176	79	42	6.4	12.80	1450	290	240C	1768		
	1500	0900	15 49.3	95 53.1	10.4	6.4	282.7	1552.4	5.8	183	176	80	42	6.1	12.80	1450	290	250C	1778		
	1700	1100	15 58.1	95 34.3	9.8	6.2	284.8	1565.2	12.8	183	176	79	42	6.3	12.85	1450	290	250C	1796		
	1800	1200	15 58.8	95 25.6	9.7	6.1	285.8	1571.3	6.1	183	176	80	42	6.7	12.85	1450	290	250C	1806		
	2100	1500	16 10.6	95 04.8	7.8	6.4	288.7	1590.3	19.0	181	176	79	42	6.3	12.85	1450	290	250C	1830		
	2300	1700	16 11.9	94 47.0	8.4	6.2	290.8	1603.1	12.8	183	176	80	42	6.1	12.85	1450	290	240C	1847		
	0000	1800	16 10.9	94 39.0	7.7	6.7	291.7	1609.5	6.4	183	178	80	42	6.3	12.70	1450	290	240C	1855		
	0100	1900	16 09.9	94 31.5	7.8	6.3	292.7	1615.8	6.3	183	178	91	42	6.2	12.80	1460	290	240C	1862		
	0300	2100	16 04.8	94 14.4	8.2	6.3	294.7	1628.4	12.6	183	178	79	42	6.3	12.85	1450	290	240C	1878		
	0400	2200	16 01.5	94 07.3	8.2	5.9	295.8	1634.6	6.2	183	178	79	42	6.2	12.85	1440	290	240C	1887		
	0500	2300	15 57.1	94 00.4	8.4	6.1	296.7	1640.4	5.8	183	178	79	42	6.2	13.00	1440	290	240C	1895		
2/21/2004	0600	0000	15 51.7	93 53.7	8.5	6.1	297.7	1646.5	6.1	183	178	80	42	6.2	12.90	1440	290	225C	1903		
	1200	0600	15 10.1	93 12.2	8.9	6.1	303.8	1683.3	36.8	183	180	79	41	6.4	12.80	1440	290	225C	1955		
	1315	0715	15 11.6	93 02.7			Buzzed by Mexican Navy Chopper; 30 miles east of Puerto Madero													1967	
	1400	0800	15 07.4	92 57.5	9.1	6.1	305.8	1695.5	12.2	181	178	79	42	6.0	12.80	1430	290	225C	1973		
	1500	0900	15 01.9	92 50.4	9.4	5.8	306.8	1701.3	5.8	181	176	79	42	5.9	12.75	1430	290	225C	1983	PORT AFT to STBD FWD	
	1600	1000	14 56.0	92 43.0	9.3	5.8	307.8	1707.1	5.8	181	167	79	42	5.7	12.70	1430	290	225C	1992	Back to 1425 - good speed	

Date	UTC	Local Time	Latitude	Longitude	Speed (GPS)	GPH	Engine Hours	METER: Fuel Consumed (Gal)	CALC'd Fuel Used (Gal)	Coolant Temp (F)	Fuel Temp (F)	Fuel Pressure (psi)	Oil Press (psi)	Fuel Rate (gph)	Battery Voltage	RPM	Trans Press (psi)	Pyrometer (F)	Trip Log (Started 2/12/2004)	Comments
	1700	1100	14 50.3	92 35.8	9.1	5.8	308.7	1712.6	5.5	181	169	79	42	5.7	12.75	1425	290	220C	2001	
	1800	1200	14 44.0	92 29.0	9.1	5.7	309.7	1718.3	5.7	181	169	78	42	5.7	12.70	1425	290	220C	2010	
	2100	1500	14 24.6	92 08.5	9.1	5.8	312.8	1735.9	17.6	181	171	77	42	5.7	12.75	1425	290	220C	2038	
	2200	1600	14 18.3	92 01.8	9.2	6.0	313.7	1741.6	5.7	181	171	78	42	5.7	12.70	1425	290	220C	2047	
	0000	1800	14 05.8	91 48.4	9.1	5.8	315.7	1753.2	11.6	181	172	78	41	5.8	12.80	1425	290	220C	2065	
	0100	1900	14 00.5	91 40.7	9.0	5.9	316.7	1759.1	5.9	181	172	79	42	6.0	12.75	1425	290	220C	2074	
	0200	2000	13 55.0	91 32.7	8.9	5.8	317.8	1765.2	6.1	181	174	78	42	5.7	12.95	1425	290	220C	2084	
	0400	2200	13 45.2	91 18.5	8.7	5.5	319.8	1776.3	11.1	181	174	78	42	5.7	12.95	1425	290	220C	2101	
	0500	2300	13 40.3	91 11.2	8.7	6.0	320.7	1782.0	5.7	181	174	77	42	5.6	12.90	1425	290	220C	2110	
2/22/2004	0600	0000	13 35.3	91 03.9	9.7	5.8	321.7	1787.8	5.8	181	174	77	42	5.9	12.95	1425	290	220C	2118	
	1200	0600	13 03.4	90 17.5	9.1	5.8	327.8	1822.8	35.0	181	176	77	42	6.0	12.90	1425	290	220C	2174	
	1300	0700	12 58.1	90 09.8	9.2	5.7	328.8	1828.5	5.7	181	176	78	42	6.0	12.75	1425	290	220C	2183	
	1400	0800	12 53.0	90 02.2	9.3	5.8	329.7	1834.0	5.5	181	174	78	42	5.8	12.80	1425	290	235C	2192	
	1500	0900	12 47.6	89 54.5	9.2	5.8	330.7	1839.8	5.8	181	178	78	42	5.7	12.85	1425	290	235C	2201	
	1600	1000	12 42.2	89 46.7	9.2	5.8	331.7	1845.6	5.8	181	178	78	42	6.0	12.80	1425	290	235C	2211	
	1700	1100	12 36.9	89 38.9	9.3	6.0	332.7	1851.6	6.0	181	178	78	42	5.8	12.80	1425	290	225C	2220	
	1800	1200	12 31.5	89 31.1	9.1	5.7	333.7	1857.3	5.7	181	178	77	42	5.8	12.80	1425	290	225C	2229	
	2000	1400	12 21.0	89 15.8	9.0	5.9	335.7	1869.0	11.7	181	180	78	42	6.0	12.75	1425	290	225C	2248	
	2100	1500	12 15.7	89 08.1	9.1	5.7	336.8	1875.0	6.0	181	180	78	42	5.8	12.80	1425	290	225C	2257	
	2200	1600	12 10.6	89 00.6	8.6	5.8	337.8	1880.8	5.8	181	180	79	41	6.0	12.85	1425	290	225C	2266	5' Head seas
	2300	1700	12 06.8	88 53.3	6.5	5.5	338.8	1886.3	5.5	178	174	77	36	3.7	12.85	1150	290	175C	2274	6'-7' Head seas - slowed & bore off
	0000	1800	12 04.8	88 47.2	7.0	3.8	339.7	1889.9	3.6	178	172	78	37	3.7	12.90	1150	290	175C	2280	
	0100	1900	12 02.5	88 40.8	6.7	3.5	340.8	1893.6	3.7	180	172	78	37	3.8	12.80	1150	290	175C	2287	
	0300	2100	12 02.9	88 26.5	6.8	3.3	342.8	1900.2	6.6	178	171	78	34	3.1	12.95	1100	290	175C	2301	
2/23/2004	0400	2200	12 00.3	88 20.4	7.5	3.9	343.7	1903.9	3.7	181	176	77	40	4.7	12.90	1300	290	200C	2307	Changed heading, RPM's up
	0600	0000	11 59.9	88 09.6	4.1	3.3	345.7	1910.4	6.5	178	169	73	32	2.9	12.75	1000	290	160C	2318	
	1200	0600	12 01.3	87 41.9	5.0	2.8	351.7	1927.0	16.6	181	174	77	38	4.0	12.90	1180	290	220C	2346	Still bucking head seas.
	1500	0900	12 02.9	87 21.8	7.5	4.4	354.7	1940.3	13.3	183	178	77	41	5.5	12.70	1360	290	225C	2365	Seas subsiding as land approaches.
	1700	1100	12 05.2	87 05.5	8.8	5.4	356.8	1951.4	11.1	183	181	76	41	6.1	12.75	1425	290	240C	2382	Back up to speed - 3' seas, 2 pts off port bow.
	1800	1200	12 01.0	86 57.9	8.7	6.2	357.7	1957.3	5.9	183	181	77	42	6.0	12.75	1425	290	240C	2391	STBD FWD to PORT FWD
	2000	1400	11 52.8	86 42.4	9.3	6.0	359.8	1969.5	12.2	183	181	76	41	6.1	12.75	1430	290	240C	2410	
	2100	1500	11 49.9	86 34.6	8.9	5.9	360.7	1975.1	5.6	181	181	75	42	6.1	12.75	1430	290	240C	2418	Vacuum Guage creeping up
	2200	1600	11 42.5	86 30.3	8.5	6.2	361.7	1981.3	6.2	183	176	78	42	6.0	12.80	1430	290	240C	2427	3 miles off Nicuragua - 2' head sea chop
	0000	1800	11 33.2	86 16.9	8.6	5.6	363.7	1992.5	11.2	181	171	77	41	5.7	12.80	1430	290	225C	2444	Swapped Racor Guage - see observations

Date	UTC	Local Time	Latitude	Longitude	Speed (GPH)	GPH	Engine Hours	METER: Fuel Consumed (Gal)	CALC'd Fuel Used (Gal)	Coolant Temp (F)	Fuel Temp (F)	Fuel Pressure (psi)	Oil Press (psi)	Fuel Rate (gph)	Battery Voltage	RPM	Trans Press (psi)	Pyrometer (F)	Trip Log (Started 2/12/2004)	Comments
	0100	1900	11 25.9	86 11.6	9.2	5.9	364.7	1998.1	5.6	181	172	79	42	5.6	12.85	1425	290	225C	2453	
	0200	2000	11 19.0	86 03.8	9.2	5.2	365.8	2004.1	6.0	181	174	79	42	5.5	12.85	1425	290	225C	2463	
	0300	2100	11 11.5	86 02.4	8.9	5.4	366.7	2009.0	4.9	181	174	78	42	5.5	13.00	1425	290	225C	2471	
	0400	2200	11 02.0	86 01.5	8.4	5.4	367.8	2014.7	5.7	183	176	78	42	5.5	12.95	1425	290	240C	2481	
	0500	2300	10 53.5	86 00.7	8.3	5.4	368.8	2020.4	5.7	183	178	78	43	5.6	13.00	1430	290	240C	2489	
2/24/2004	0600	0000	10 45.9	85 59.4	8.5	5.6	369.7	2025.4	5.0	183	176	78	43	5.6	13.00	1430	290	240C	2497	PORT FWD to STBD AFT
	1200	0600	9 57.3	85 44.1	8.0	5.5	375.8	2058.4	33.0	181	171	77	42	5.6	13.00	1430	290	240C	2549	
	1300	0700	9 51.0	85 37.9	8.0	5.5	376.8	2064.2	5.8	183	171	81	42	5.6	13.00	1430	290	240C	2557	
	1400	0800	9 46.9	85 31.6	8.0	5.8	377.7	2069.4	5.2	183	171	82	42	5.5	12.95	1430	290	240C	2565	
	1500	0900	9 42.3	85 24.7	8.2	5.2	378.8	2074.9	5.5	183	171	81	42	5.5	13.00	1430	290	240C	2573	
	1600	1000	9 37.8	85 17.9	9.0	5.6	379.7	2080.2	5.3	183	172	82	42	5.6	12.80	1430	290	240C	2581	
	1700	1100	9 32.9	85 10.5	9.3	5.8	380.6	2085.4	5.2	183	172	81	42	5.6	12.74	1430	290	240C	2590	
	1800	1200	9 28.1	85 03.5	8.4	5.9	381.7	2091.6	6.2	183	174	80	42	6.0	12.80	1440	290	240C	2599	
	2000	1400	9 17.7	84 49.2	8.7	6.0	383.7	2103.9	12.3	183	174	81	42	6.0	12.80	1440	290	240C	2616	
	2100	1500	9 12.1	84 41.6	8.5	6.3	384.8	2110.5	6.6	183	174	81	42	6.0	12.85	1440	290	240C	2625	
	2200	1600	9 07.5	84 35.3	8.5	5.8	385.7	2116.0	5.5	183	174	81	42	5.8	12.75	1440	290	240C	2633	
	2300	1700	9 02.6	84 28.7	7.8	5.7	386.7	2121.7	5.7	183	174	80	41	5.9	12.75	1440	290	240C	2642	
	0100	1900	8 52.9	84 15.2	8.7	5.8	388.7	2133.3	11.6	181	174	82	41	5.7	12.80	1440	290	240C	2658	
	0200	2000	8 47.5	84 07.8	8.9	5.6	389.7	2138.9	5.6	181	174	82	42	5.7	12.75	1440	290	240C	2667	
	0300	2100	8 42.5	84 01.1	8.5	5.6	390.7	2144.2	5.3	183	176	81	42	5.7	12.90	1440	290	240C	2676	
	0400	2200	8 37.3	83 54.0	8.3	5.5	391.7	2150.0	5.8	183	176	80	42	5.7	13.10	1440	290	240C	2684	STBD AFT to PORT AFT
	0500	2300	8 32.5	83 47.4	8.3	5.5	392.7	2155.5	5.5	181	172	80	41	5.7	13.00	1440	290	240C	2693	
2/25/2004	0600	0000	8 27.3	83 40.3	8.7	5.7	393.7	2161.2	5.7	181	172	79	42	5.9	12.95	1440	290	240C	2701	
	1200	0600	7 58.0	82 53.1	10.2	5.8	399.7	2195.7	34.5	183	176	79	42	5.8	13.00	1440	290	240C	2757	
	1300	0700	7 54.0	82 43.4	10.1	5.9	400.7	2201.6	5.9	181	176	78	42	5.9	13.00	1440	290	240C	2767	
	1400	0800	7 50.3	82 34.5	10.1	5.6	401.7	2207.2	5.6	183	176	77	42	5.8	12.95	1440	290	240C	2777	
	1500	0900	7 47.4	82 25.2	9.6	5.6	402.7	2212.8	5.6	181	176	77	42	5.8	12.95	1440	290	240C	2787	
	1600	1000	7 45.8	82 15.3	9.3	6.0	403.7	2218.8	6.0	183	178	77	41	5.8	13.10	1440	290	240C	2796	
	1700	1100	7 44.3	82 06.1	9.5	5.9	404.7	2224.7	5.9	183	178	78	41	6.0	12.95	1440	290	240C	2805	
	1800	1200	7 42.7	81 56.5	10.1	5.8	405.7	2230.5	5.8	183	180	77	41	6.0	12.95	1440	290	250C	2815	
	1900	1300	7 40.9	81 45.9	10.6	5.8	406.8	2236.6	6.1	183	180	77	41	6.0	12.85	1440	290	250C	2826	Isla de Coiba, Panama - beautiful
	2000	1400	7 37.5	81 35.5	10.8	5.7	407.8	2242.6	6.0	183	180	77	41	6.0	12.80	1435	290	240C	2837	
	2100	1500	7 32.0	81 26.9	10.8	6.1	408.7	2248.1	5.5	183	180	76	41	6.0	12.85	1435	290	240C	2847	
	2200	1600	7 26.2	91 17.6	10.4	5.9	409.8	2254.3	6.2	183	180	76	42	6.0	12.80	1435	290	240C	2858	

Date	UTC	Local Time	Latitude	Longitude	Speed (GPS)	GPH	Engine Hours	METER: Fuel Consumed (Gal)	CALC'd Fuel Used (Gal)	Coolant Temp (F)	Fuel Temp (F)	Fuel Pressure (psi)	Oil Press (psi)	Fuel Rate (gph)	Battery Voltage	RPM	Trans Press (psi)	Pyrometer (F)	Trip Log (Started 2/12/2004)	Comments		
	2300	1700	7 21.0	81 09.5	8.9	5.8	410.8	2260.1	5.8	181	180	77	42	6.0	12.75	1435	290	240C	2867			
	0000	1800	7 16.1	81 01.7	9.7	6.3	411.7	2266.1	6.0	183	180	76	41	6.0	12.70	1435	290	240C	2876			
	0100	1900	7 10.9	80 53.5	9.3	5.7	412.8	2272.1	6.0	181	180	78	42	5.9	12.85	1435	290	240C	2886			
	0110	1910	7 10.492	80 52.725	9.6	6.0	413.0	2273.6	1.5	181	180	79	42	5.9	12.80	1435	290	240C	2887	Southern most extremity of trip		
	0300	2100	7 11.5	80 34.1	9.8	5.8	414.7	2283.5	9.9	181	180	78	41	5.9	13.00	1435	290	240C	2905			
	0400	2200	7 12.0	80 25.2	9.4	6.0	415.7	2289.2	5.7	181	180	78	42	5.8	13.00	1435	290	240C	2915			
	0500	2300	7 15.9	80 15.9	9.6	5.6	416.7	2295.1	5.9	181	180	78	42	5.8	13.00	1435	290	240C	2925			
2/26/2004	0600	0000	7 19.9	80 08.9	9.6	5.8	417.7	2300.9	5.8	181	180	77	42	5.9	13.00	1435	290	240C	2934			
	1200	0600	8 06.0	79 44.1	8.7	6.0	423.7	2336.5	35.6	181	174	80	42	5.8	13.00	1435	290	240C	2988			
	1300	0700	8 14.6	79 41.0	8.6	5.6	424.7	2342.4	5.9	181	172	79	41	6.0	12.90	1435	290	240C	2997			
	1400	0800	8 22.8	79 38.1	8.6	6.0	425.7	2348.1	5.7	181	172	81	42	5.9	12.95	1435	290	240C	3006			
	1500	0900	8 30.8	79 35.2	8.2	5.5	426.7	2353.6	5.5	183	172	81	41	5.9	12.95	1435	290	240C	3015			
	1900	1300	Checked in with Flamenco Signal, sea buoy for Panama City																			
	2030Z	1430 Eastern Time Zone					430.3	2373.9													3044	MARINA FLAMENCO, PANAMA
2/27/2004	Oil & Filter Change - 430.5 engine hours.																					
	175 Engine Hours																					
	1516 Miles - Leg																					

APPENDIX 1c – Leg 3 Trip Log (Panama City to Fort Lauderdale)

Date	UTC	Local Time	Latitude	Longitude	Speed (GPS)	Calc'd GPH	Engine Hours	METER: Fuel Consumed (Gal)	CALC'd Fuel Used (Gal)	Coolant Temp (F)	Fuel Temp (F)	Fuel Pressure (psi)	Oil Press (psi)	Fuel Rate (gph)	Battery Voltage	RPM	Trans Press (psi)	Pyrometer (F)	Trip Log (Started 2/12/2004)	Comments	
2/28/2004	1200	0600	Balboa, Panama				430.3	2373.9											3044	Start leg on Port Aft Fuel Tank	
	1300	0700	16.41.8	99.47.0	8.7	5.7	256.9	1390.5	-983.4	183	172	81	42	6.3	12.70	1460	290	240C	1539		
	1220	0720	On Station Flamenco Signal - Standing by																		
	2140	1640	Gatun Locks																		
	2200	1720					439.8	2405.5												3081	
	2220	1720	9 20.9	79 54.9	9.3	3.7	440.5	2408.1	2.6	183	167	78	45	5.9	12.55	1430	260	210C	3086	Break water - Cristobal Control - checked out.	
	2300	1800	9 25.4	79 56.6	8.7	6.9	441.0	2411.9	3.8	181	172	78	43	5.9	12.55	1430	280	240C	3092	6' confused chop - headed to shore	
	0000	1900	9 21.5	80 03.9	8.2	5.8	442.0	2417.7	5.8	181	172	78	44	6.0	12.90	1440	280	240C	3100	Weather - recommend San Andrez - can't do.	
	0200	2100	9 13.8	80 20.7	9.1	6.0	444.0	2429.6	11.9	181	172	79	43	5.5	13.00	1430	280	240C	3118		
	0300	2200	9 12.2	80 28.8	8.6	5.2	445.1	2435.1	5.5	181	172	78	43	5.8	13.00	1435	280	240C	3127		
2/29/2004	0400	2300	9 13.3	80 36.9	8.3	5.9	446.0	2440.7	5.6	181	172	78	43	5.8	12.95	1430	280	240C	3135		
	0500	0000	9 14.5	80 45.3	8.0	5.9	447.0	2446.6	5.9	181	172	78	43	5.9	12.95	1435	275	240C	3143		
	1200	0700	9 22.7	81 36.8	6.7	5.8	454.1	2487.6	41.0	183	174	78	43	6.0	12.95	1435	275	240C	3194		
	1300	0800	9 26.7	81 42.2	6.7	6.3	455.1	2493.9	6.3	181	174	79	43	6.5	12.95	1435	275	240C	3201		
	1400	0900	9 30.5	81 47.5	6.7	6.1	456.0	2499.7	5.8	183	174	78	44	6.3	12.95	1435	275	240C	3208		
	1500	1000	9 35.4	81 52.9	7.1	6.2	457.1	2506.2	6.5	183	174	79	43	6.3	13.00	1435	275	240C	3214	8' swell w4'-5' confused chop	
	1600	1100	9 40.3	81 58.3	7.2	6.2	458.1	2512.4	6.2	181	174	78	43	6.0	12.95	1435	275	240C	3222		
	1700	1200	9 45.1	82 03.7	7.2	6.0	459.1	2518.4	6.0	183	176	78	43	6.3	12.95	1435	275	240C	3229		
	2000	1700	10 10.7	82 32.2	7.8	6.1	464.0	2548.7	30.3	183	176	78	43	6.0	12.95	1445	275	240C	3268	30 miles off Limon, CR	
	2100	1800	10 15.8	82 38.9	7.8	5.9	465.1	2555.2	6.5	183	176	77	43	5.8	12.95	1445	275	240C	3276		
3/1/2004	0200	2100	10 29.9	82 57.1	8.0	6.1	468.0	2572.9	17.7	181	176	79	44	6.0	12.85	1445	275	240C	3299		
	0300	2200	10 34.6	83 03.6	8.0	5.9	469.0	2578.8	5.9	181	176	78	44	5.8	13.00	1445	275	240C	3307		
	0400	2300	10 39.5	83 10.3	8.2	6.3	470.0	2585.1	6.3	181	178	78	43	6.0	12.95	1445	275	240C	3315		
	0500	0000	10 44.3	83 16.9	8.0	5.9	471.0	2591.0	5.9	181	178	77	43	6.0	12.95	1445	275	240C	3323		
	1100	0600	11 19.7	83 49.8	8.5	6.1	477.1	2627.9	36.9	181	178	77	43	6.2	12.95	1445	275	240C	3373	Throttled down to 1440	
	1200	0700	11 26.3	83 44.8	8.3	6.0	478.1	2633.9	6.0	178	178	77	43	6.1	12.95	1440	275	240C	3381		
	1300	0800	11 32.4	83 40.2	7.7	6.3	479.0	2639.9	6.0	183	178	77	43	6.5	12.95	1440	275	240C	3389	Heavy chop rounding Punta del Muno, Nicuraç	
	1400	0900	11 37.3	83 36.6	7.0	4.3	480.1	2644.4	4.5	180	174	78	41	4.5	13.00	1275	250	240C	3396	Heavy head seas - 6' short chop	
	1500	1000	11 45.0	83 35.4	7.8	5.4	481.1	2649.8	5.4	181	178	78	42	5.5	13.00	1400	275	240C	3403	Seas still building	
	1600	1100	11 53.2	83 33.2	7.8	5.8	482.1	2655.9	6.1	183	178	77	42	5.7	13.00	1400	275	240C	3412		

Date	UTC	Local Time	Latitude	Longitude	Speed (GPS)	Calc'd GPH	Engine Hours	METER: Fuel Consumed (Gal)	CALC'd Fuel Used (Gal)	Coolant Temp (F)	Fuel Temp (F)	Fuel Pressure (psi)	Oil Press (psi)	Fuel Rate (gph)	Battery Voltage	RPM	Trans Press (psi)	Pyrometer (F)	Trip Log (Started 2/12/2004)	Comments	
3/2/2004	1700	1200	11 59.9	83 30.8	7.9	6.0	483.0	2661.3	5.4	183	178	75	42	5.8	12.95	1400	275	240C	3419	Weather shows deterioration. Prepared for he:	
	2000	1500	12 18.8	83 19.4	7.2	5.1	486.0	2676.5	15.2	180	169	79	41	4.8	13.00	1300	275	220C	3441	Switched fuel from PORT AFT to STBD AFT.	
	0000	1900	12 51.2	83 13.2	8.5	5.7	490.1	2700.0	23.5	183	169	81	43	6.8	12.95	1445	275	220C	3475		
	0100	2000	12 59.3	83 13.2	8.5	6.1	491.1	2705.8	5.8	183	171	81	43	6.2	12.95	1445	275	220C	3483		
	0200	2100	13 07.9	83 12.4	8.5	6.1	492.1	2711.9	6.1	183	171	82	44	6.0	12.85	1445	275	240C	3491		
	0300	2200	13 16.0	83 11.7	8.1	6.2	493.0	2717.8	5.9	183	171	83	43	6.0	12.85	1445	275	240C	3500		
	0400	2300	13 24.1	83 11.0	9.4	5.8	494.0	2723.6	5.8	183	171	82	43	6.1	12.95	1445	275	240C	3508		
	0500	0000	12 32.6	83 10.2	8.6	6.1	495.0	2729.7	6.1	183	171	83	43	6.0	12.95	1440	275	240C	3517		
	1200	0700	14 36.0	83 07.8	9.2	6.1	502.0	2772.1	42.4	181	172	81	43	6.6	13.00	1440	275	240C	3580		
	1300	0800	14 45.4	83 08.1	9.1	6.1	503.0	2778.2	6.1	183	172	81	43	6.5	13.00	1440	275	240C	3590	Short 5 footers on the beam	
	1400	0900	14 54.5	83 06.2	9.2	5.9	504.1	2784.4	6.2	183	172	81	43	6.2	13.00	1445	275	240C	3599	Clawing past Gracias a Dios	
	1500	1000	15 03.6	83 03.3	9.5	6.2	505.1	2790.6	6.2	183	172	81	43	6.2	13.00	1445	275	240C	3609	Heavy short chop - heading NNE to angle into	
	1600	1100	15 12.2	83 01.1	9.2	6.1	506.0	2796.4	5.8	183	172	81	43	6.4	13.00	1445	275	240C	3618	020M toward Cayman, seas 2 pts off stbd bow	
	1700	1200	15 20.5	82 57.9	9.0	6.2	507.0	2802.3	5.9	183	174	81	43	6.1	13.00	1445	290	240C	3627		
	1900	1400	15 37.3	82 51.3	8.7	6.2	509.0	2815.0	12.7	183	174	81	43	6.1	13.00	1440	290	240C	3645	10' sorta spaced out (8 seconds?)	
	2200	1700	16 03.0	82 45.0	8.7	6.0	512.0	2833.0	18.0	183	169	80	43	5.9	13.00	1440	290	240C	3671		
	3/3/2004	0200	2100	16 36.4	82 39.7	8.5	5.7	516.0	2855.7	22.7	181	167	81	42	5.3	12.90	1350	290	200C	3705	
		0400	2300	16 51.3	82 36.1	7.5	4.8	518.0	2865.2	9.5	180	167	78	41	4.5	13.10	1300	290	200C	3720	Slowed due to head seas
0500		0000	16 58.4	82 34.5	7.5	4.6	519.0	2869.8	4.6	180	167	78	41	4.9	13.05	1300	290	200C	3728		
1100		0600	17 50.8	82 27.6	9.0	5.2	525.1	2901.4	31.6	181	171	80	42	5.2	13.05	1400	275	240C	3780	Throttled down to 1300 - head seas	
1200		0700	17 58.4	82 27.5	8.6	4.2	526.0	2905.2	3.8	180	169	79	40	4.2	13.10	1250	250	240C	3788	8' Chop - 3 pts off stbd bow	
1300		0800	18 06.6	82 27.4	7.5	4.3	527.0	2909.5	4.3	180	169	79	40	4.2	13.05	1250	250	240C	3796		
1700		1200	18 38.1	82 26.9	8.3	4.8	531.0	2928.6	19.1	181	172	78	42	5.3	13.00	1360	275	240C	3828	Increased RPM's to 1400	
2300		1800	19 22.9	82 41.3	9.5	5.7	537.0	2962.6	34.0	181	176	79	43	5.9	12.85	1435	275	240C	3883	Heading downwind toward West Cuba	
0100		2000	19 24.9	82 57.5	9.8	5.8	539.0	2974.2	11.6	183	176	79	42	6.0	13.00	1435	275	240C	3902		
0300		2200	19 46.8	83 11.0	9.0	5.7	541.0	2985.5	11.3	181	176	78	43	6.0	12.95	1430	275	240C	3920	Noted small knock on stbd dtabilizer	
3/4/2004	0400	2300	19 54.6	83 18.8	9.5	6.2	542.1	2992.3	6.8	181	176	78	43	5.6	13.00	1430	275	240C	3931		
	0500	0000	20 00.7	83 24.9	9.4	5.8	543.1	2997.8	5.5	181	178	79	43	6.4	13.00	1430	275	240C	3939		
	1100	0600	21 41.6	84 05.8	9.0	5.7	549.1	3032.0	34.2	183	178	77	43	6.2	13.05	1430	275	240C	3995		
	1400	0900	21 02.2	84 26.5	9.5	6.4	552.0	3050.8	18.8	183	180	77	43	6.2	12.95	1435	275	240C	4024		
	1600	1100	21 16.3	84 40.8	9.4	5.8	554.0	3062.4	11.6	183	180	78	44	6.3	12.95	1445	290	240C	4043		

Date	UTC	Local Time	Latitude	Longitude	Speed (GPS)	Calc'd GPH	Engine Hours	METER: Fuel Consumed (Gal)	CALC'd Fuel Used (Gal)	Coolant Temp (F)	Fuel Temp (F)	Fuel Pressure (psi)	Oil Press (psi)	Fuel Rate (gph)	Battery Voltage	RPM	Trans Press (psi)	Pyrometer (F)	Trip Log (Started 2/12/2004)	Comments		
3/5/2004	1700	1200	21 23.5	84 47.9	9.5	6.2	555.0	3068.6	6.2	183	181	78	43	6.1	12.85	1445	290	240C	4053	Turned corner - west Cuba		
	2000	1500	21 43.2	85 06.4	9.2	6.0	558.0	3086.7	18.1	181	171	78	43	6.1	12.85	1445	290	240C	4080	Switched fuel from PORT FWD to STBD FWD		
	0000	1900	22 17.9	85 54.5	9.5	6.0	562.1	3111.4	24.7	181	167	80	44	6.2	13.00	1440	290	240C	4118			
	0200	2100	22 35.9	84 44.1	9.4	5.9	564.1	3122.9	11.5	181	169	79	43	5.7	13.00	1440	290	240C	4137	4' head chop.		
	0300	2200	22 43.1	84 37.3	9.0	6.3	565.1	3129.5	6.6	181	169	79	43	6.0	13.00	1440	290	240C	4147	Adverse current - see chart		
	0400	2300	22 48.2	84 31.5	8.6	5.8	566.0	3134.7	5.2	181	171	79	43	6.2	13.10	1440	290	240C	4154			
	0500	0000	22 54.1	84 24.9	7.7	5.4	567.0	3140.1	5.4	181	169	79	42	5.1	13.10	1300	290	220C	4163	Throttled back - head seas off Cuba		
	1100	0600	23 24.8	83 45.9	8.8	4.1	573.1	3164.9	24.8	180	167	79	39	4.3	13.15	1225	290	190C	4211	Throttled way back		
	1200	0700	23 28.0	83 38.0	9.1	4.0	574.0	3168.5	3.6	180	169	79	39	4.5	13.15	1225	290	190C	4219			
	1400	0900	23 38.2	83 20.0	9.8	4.2	576.0	3176.9	8.4	180	169	78	39	4.5	13.05	1225	290	190C	4239			
	1500	1000	23 43.5	83 11.0	9.5	4.1	577.1	3181.2	4.3	180	169	79	39	4.2	13.05	1225	290	190C	4248			
	1700	1200	23 54.1	82 54.8	9.5	4.1	579.0	3189.2	8.0	180	169	80	40	4.1	13.05	1225	290	190C	4267			
	1900	1400	24 04.7	82 37.3	9.8	4.2	581.0	3197.4	8.2	180	171	79	39	4.2	13.00	1225	290	190C	4286	Still slow - stream pushing nicely		
	2000	1500	24 09.3	82 28.4	9.5	3.9	582.0	3201.5	4.1	180	171	79	39	4.9	13.05	1225	290	190C	4295			
	0000	1900	24 25.2	81 53.8	8.5	5.5	586.0	3223.4	21.9	183	176	79	43	6.3	12.70	1450	290	240C	4331	Smooth - but slow		
	0200	2100	24 26.9	81 35.4	8.5	6.4	588.0	3236.6	13.2	181	176	76	44	6.1	12.85	1450	290	240C	4348	Abeam Key West		
	0300	2200	24 28.4	81 26.7	9.0	6.3	589.0	3242.6	6.0	181	176	79	44	6.0	12.85	1450	290	240C	4357			
	0400	2300	24 31.2	81 16.2	8.0	6.0	590.0	3248.9	6.3	181	176	80	43	6.2	12.95	1450	290	240C	4365			
	0500	0000	24 32.1	81 09.2	8.0	6.0	591.0	3254.9	6.0	181	176	79	43	6.0	12.95	1450	290	240C	4373			
	1000	0500	24 53.2	80 30.2	9.0	6.1	596.1	3285.6	30.7	181	169	79	43	6.3	12.95	1450	290	240C	4415	Beam sea chop.		
	1100	0600	24 57.7	80 21.9	9.5	6.3	597.0	3291.3	5.7	181	169	77	43	6.3	12.75	1450	290	240C	4423	Headed out to find stream		
	1200	0700	25 03.9	80 12.2	11.0	5.9	598.0	3297.5	6.2	181	171	79	42	6.0	12.75	1450	290	240C	4434	Choppy, but in the stream		
	1300	0800	25 14.9	80 05.0	12.0	6.0	599.1	3304.1	6.6	181	171	78	43	6.2	12.80	1450	290	240C	4447			
	1400	0900	25 25.2	80 03.4	12.5	6.1	600.1	3309.9	5.8	181	171	78	43	6.1	12.95	1450	290	240C	4459			
	1500	1000	25 39.5	80 02.8	13.0	6.7	601.0	3316.3	6.4	183	174	79	44	6.1	12.95	1450	290	240C	4472			
	1600	1100	25 52.5	80 02.5	13.0	7.1	602.0	3323.4	7.1	183	174	79	44	6.6	12.95	1450	290	240C	4485			
	1700	1200	ort Everglades #2 & #			10.0		171.7	949.5	7											1441	
	1800	1300	Sunshine Bridge (showed 26' of clearance, measured 14' at dock in Panama. Caution dictates waiting for 1300 hrs bridge opening.																			
1830	1330	Oakland Bridge																				
1845	1345	Home Port					605.0	3335.6													4508	

APPENDIX 2 – Fuel Management Log

LEG 1 - DANA POINT TO ACAPULCO

Time (LOCAL)	Valved fuel from	Valved Fuel to	Engine Gallons Consumed Meter reading	Main Engine - Gallons Consumed on "From" tank	Main Engine Hour Meter	Main Engine Hours	Generator Hours	Wing Engine Hours		
2/10/2004	Trip Start 1115 hrs		371.4		83.8			833 gallons taken on at Dana Point		
2/12/2004	0630 Port Aft	Stbd Aft	631.8	260.4	127.0	43.2	4	1 Appears to be a 200 gallon +/- list to port. May need to re-ballast		
2/13/2004	1630 Stbd Aft	Port Fwd	838.1	206.3	161.0	34.0	4	0.0 Switched from Stbd Aft to Port Fwd tank		
2/15/2004	0530 Port Fwd	Stbd Fwd	1048.0	209.9	198.0	37.0	2	0.0		
2/16/2004	1300 Stbd Fwd	Port Aft	1238.0	190.0	229.5	31.5	2	0.0		
	Port Aft	-----	1378.1	140.1	253.5	24.0	4	1.0		
EST. FUEL USED			1006.7	1006.7	169.7	169.7	16.0	2.0		
Switched Racor from PORT side to STBD side - will replace PORT in Acapulco										
2/18/2004 0700 Replaced PORT racor - looked fine, some sediment in bowl										
ACAPULCO - ARRIVAL STAT'S			Fuel Usage		Engine Hours		Overall			
<i>"Actual" is meter reading at start minus meter reading at finish</i>			Meter Reading	Leg Gallons Used	Meter Reading	Leg Engine Hours	gph	kts		
			1378.1	1006.7	253.5	169.7	5.93	8.88		
TANK USAGE				WING	GEN	TOTAL	Estimate 1gph for both Generator and Wing Engine			
Port Aft				400.5	2.0	8	410.5			
Stbd Aft				206.3	0.0	4	210.3			
Port Fwd				209.9	0.0	2	211.9			
Stbd Fwd				190.0	0.0	2	192.0			
CHECK SUM							1024.7			
Acapulco Fuel Load			Gallons	Litros	COST		5.03 Pesos/litro			
Port Aft			451.3	1704	8571.12		Add'l 15% upcharge for Yacht Club.			
Stbd Aft			219.5	829	4169.87					
Port Fwd			0.0	0	0					
Stbd Fwd			0.0	0	0					
TOTAL			670.8	2533	12741		\$ 1,274.10 Did NOT top off tanks. Difficulty getting fuel in, expensive fuel.			

LEG 2 - ACAPULCO TO BALBOA

	Time (LOCAL)	Valved fuel from	Valved Fuel to	Engine Gallons Consumed Meter reading	Main Engine - Gallons Consumed on "From" tank	Main Engine Hour Meter	Main Engine Hours	Generator Hours	Wing Engine Hours
2/19/2004	Trip Start 0530 hrs			1378.1		255.5			
670 Gallons diesel - STBD AFT tank vapor locked - could not take on fuel									
2/21/2004	900	Port Aft	Stbd Fwd	1701.1	323.0	306.7	51.2	5.0	1.0
2/23/2004	1600	Stbd Fwd	Port Fwd	1981.0	279.9	361.7	55.0	0.0	0.0
2/24/2004	0030	Port Fwd	Stbd Aft	2028.3	47.3	370.2	8.6	4.2	0.0
2/24/2004	2200	Stbd Aft	Port Aft	2150.9	122.6	391.9	21.7	3.5	0.0
		Port Aft	-----	2353.6	202.7	430.5	38.7	0	0.0
FUEL USED				975.5	975.5	175.0	175.0	12.7	1.0

BALBOA - ARRIVAL STAT'S	Fuel Usage		Engine Hours		Overall	
<i>"Actual" is meter reading at start minus meter reading at finish</i>	Meter Reading	Leg Gallons Used	Meter Reading	Leg Engine Hours	gph	kts
	1378.1	975.5	430.5	175.0	5.57	8.61

Flamenco Marina Fuel Load	Gallons	1.46 Dollars/gallon
Port Aft	568.9	
Stbd Aft	400.1	
Port Fwd	305.0	
Stbd Fwd	79.2	Did not get Stbd Fwd full.
TOTAL	1353.2	\$ 1,975.67

LEG 3 - BALBOA TO FT LAUDERDALE

	Time (LOCAL)	Valved fuel from	Valved Fuel to	Engine Gallons Consumed Meter reading	Main Engine - Gallons Consumed on "From" tank	Main Engine Hour Meter	Main Engine Hours	Generator Hours	Wing Engine Hours
2/28/2004	Trip Start 0730- hrs (EST)			2373.9		430.5			
	1500	Port Aft	Stbd Aft	2676.3	302.4	486.0	55.5	44.0	10.0
3/2/2004	1700	Stbd Aft	Port Fwd	2833.0	156.7	512.0	26.0	24.0	0.0
3/4/2004	1440	Port Fwd	Stbd Fwd	3085.4	252.4	557.8	45.8	42.0	0.0
3/6/2004	430	Stbd Fwd	Port Aft	3282.9	197.5	595.5	37.8	35.0	0.0
		Port Aft	Stbd Aft	3329.4	46.5	602.9	7.4	7.4	0.0
FUEL USED		Stbd Aft		3335.0	5.6	605.0	2.1	2.1	2.0
				961.1	961.1		174.5	154.5	12.0
1353 Gallons taken on at Panama									
FT LAUDERDALE - ARRIVAL STAT'S				Fuel Usage		Engine Hours		Overall	
<i>"Actual" is meter reading at start minus meter reading at finish</i>				Meter	Actual	Meter	Actual	gph	kts
				1378.1	961.1	605.0	174.5	5.51	8.64

APPENDIX 3 – Generator Log

Date	Time ON	Time OFF	Hours RUN	Generator		Comments
				Oil Pressure	Coolant Temp	
2/11/2004	1705	1940	2.5	45	145.0	Possible - wrong guage when second panel added. Sender not set up for twin guages?
2/13/2004	1200	1700	5.0	45	145.0	
2/14/2004	1700	1830	1.5	45	145.0	
2/16/2004	1500	1900	4.0	45	145.0	
2/17/2004	1500	1800	3.0			Dinghy Launch
2/18/2004	1500	1800	3.0			A/C at dock (no plug in)
2/19/2004	1230	1700	4.5			Laundry Day! Watermaker too
2/23/2004	1820	0920	15.0			Low lat's - A/C for sleeping - laundry, cooking
2/24/2004	1630	1000	17.5			
2/25/204	1700	1900	24.0			
2/26/2004			Oil & Filter Change - 193 Engine Hours (upper panel)			
2/28.2004	1900		5.0			
2/29/2004			24.0			Beating North - spray prevents windows from being open
3/1/2004			24.0			
3/2/2004			24.0			
3/3/2004			24.0			
3/4/2004			18.0			
3/5/2004			20.0			
3/6/2004			5.0			
TOTAL			224.0			

APPENDIX 4 – Wing Engine Log

Wing Engine						
Date	Engine Hours	Time ON	Time OFF	Oil Pressure	Coolant Temp	Comments
2/10/2004	0.5	1115	1145	N/A	N/A	In Harbor Maneuvering - Dana Point
2/17/2004	0.5	1430	1500			Anchored in Acapulco
2/18/2004	1.8	1300	1450			Moved to fuel dock
2/19/2004	0.5	0530	0600			Departed Acapulco
2/25/2004	0.8	1300	1350			Marina Flamenco Panama City
2/28/2004	10.0	700	1700			Locking Panama Canal
3/6/2004	1.3	1230	1345			Docking - Ft Lauderdale
TOTAL	15.3					

APPENDIX 5 – Watermaker Log

Watermaker				
Date	Time ON	Time OFF	Hours	Comments
2/11/04	1715	1940	2.5	Trip start: 3.0 hours on Water Maker
2/13/04	1200	1500	3.0	
2/14/04	1700	1830	1.5	
2/16/04	1500	1900	4.0	
2/19/04	1300	1700	5.0	
2/23/04	1820	0030	4.2	
2/25/04	815	1000	1.8	
2/26/04	600	1000	4.0	
2/28/04	1900	2300	4.0	
3/1/04	900	1300	4.0	
3/3/04	1130	1330	4.0	
3/5/04	1200	1500	3.0	
			41.0	