



International Civil Aviation Organization

NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN OFFICE

Regional North American/Caribbean (NAM/CAR) Air Traffic Management (ATM) Meeting

(Santo Domingo, Dominican Republic, 19-21 April 2006)

NAM/CAR ATM - WP/04

05/04/06

Agenda Item 3: Strategy and regional implementation activities regarding airspace organization and management (AOM), ATS routes, RNAV, RNP, and the 5-letter name codes (5LNC) assignment system.

IMPLEMENTATION OF NEW AND PROPOSED RNAV ROUTES

(Presented by IATA)

SUMMARY

This working paper informs of the operational efficiencies and cost savings to the airspace users of the implementation of new and proposed RNAV routes.

1. Introduction

1.1 IATA is working with several States, the ICAO Regional Office and FAA to implement additional RNAV routes throughout the region. This network of RNAV routes is expected to result in significant operational efficiency and cost savings to airspace users.

1.2 The **Appendix** provides detailed information about the potential savings associated with new routes under development, as well as new proposed routes.

2. RECOMMENDED/DESIRED OUTCOME:

2.1 The meeting is asked to:

- a) take note of this information and to contact IATA for any questions or additional information required; and
- b) support the implementation of these routes and the development of future RNAV routes in the region.

RNAV Mexico City to Dolphin VOR to Miami International

A 509 MMMX to Dolphin VOR 1136 NM

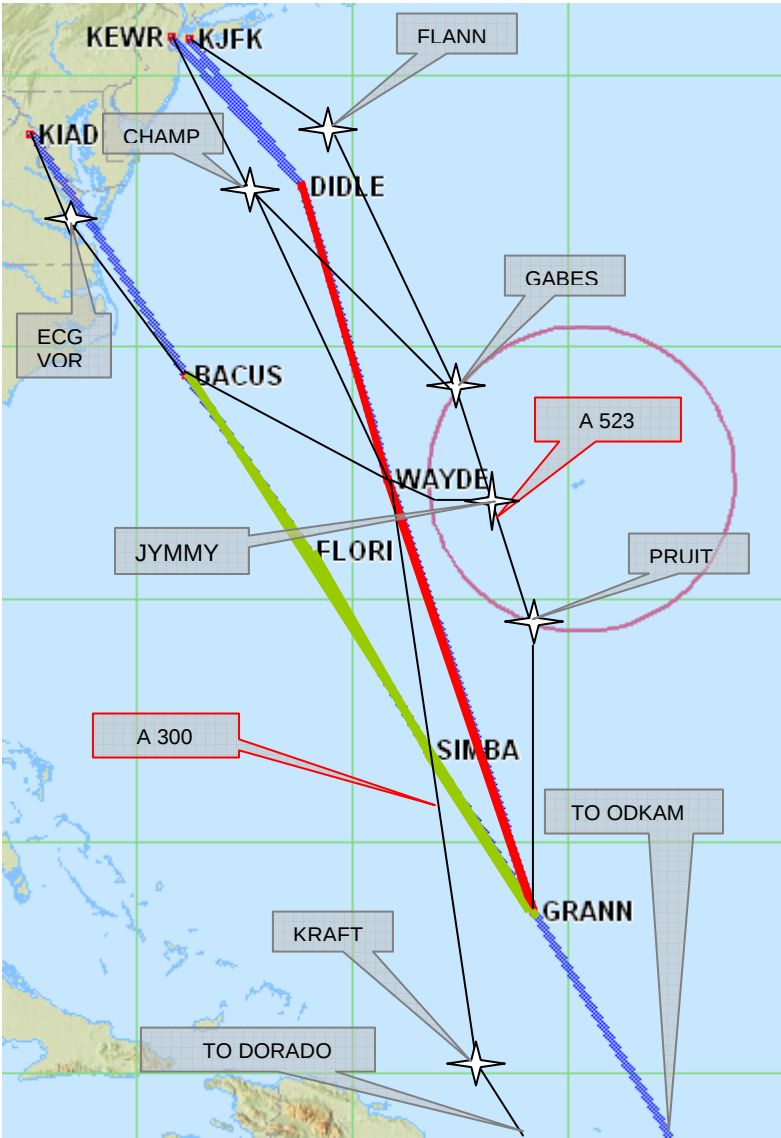
B 646 MMMX to Dolphin VOR 1156 NM

RNAV MMMX Direct Dolphin VOR 1103 NM

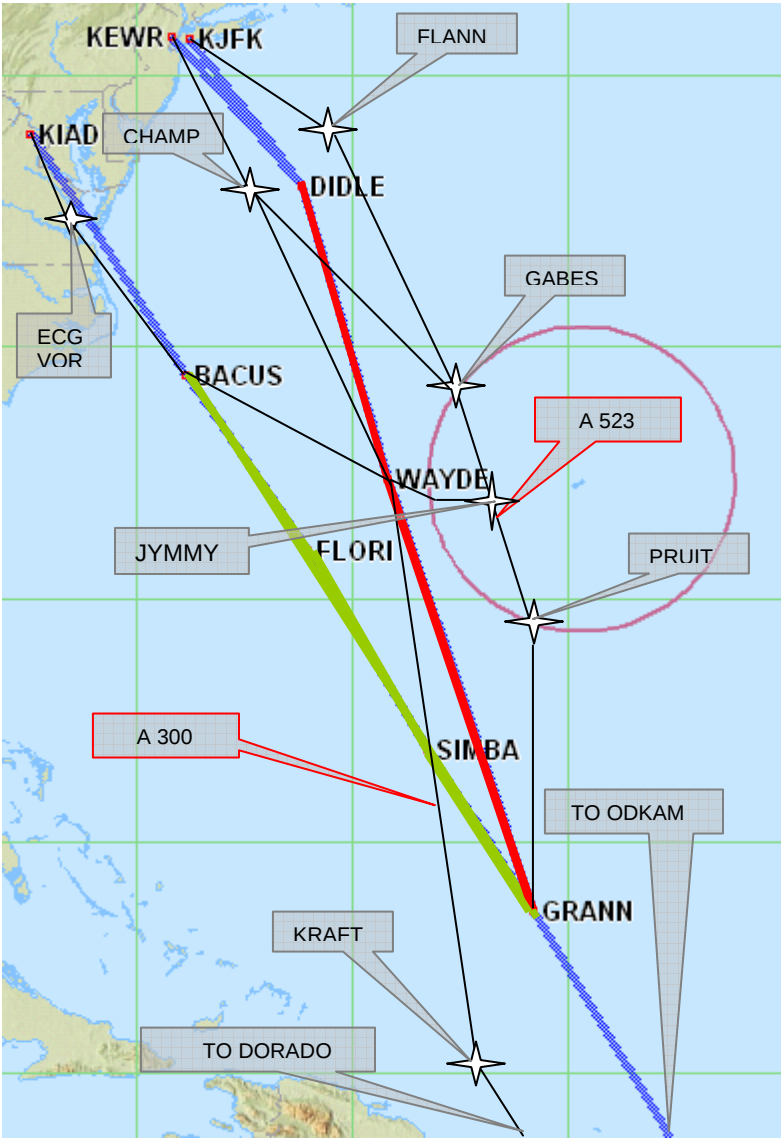
Direct route savings = 33 NM over A509 and 53 NM over B646

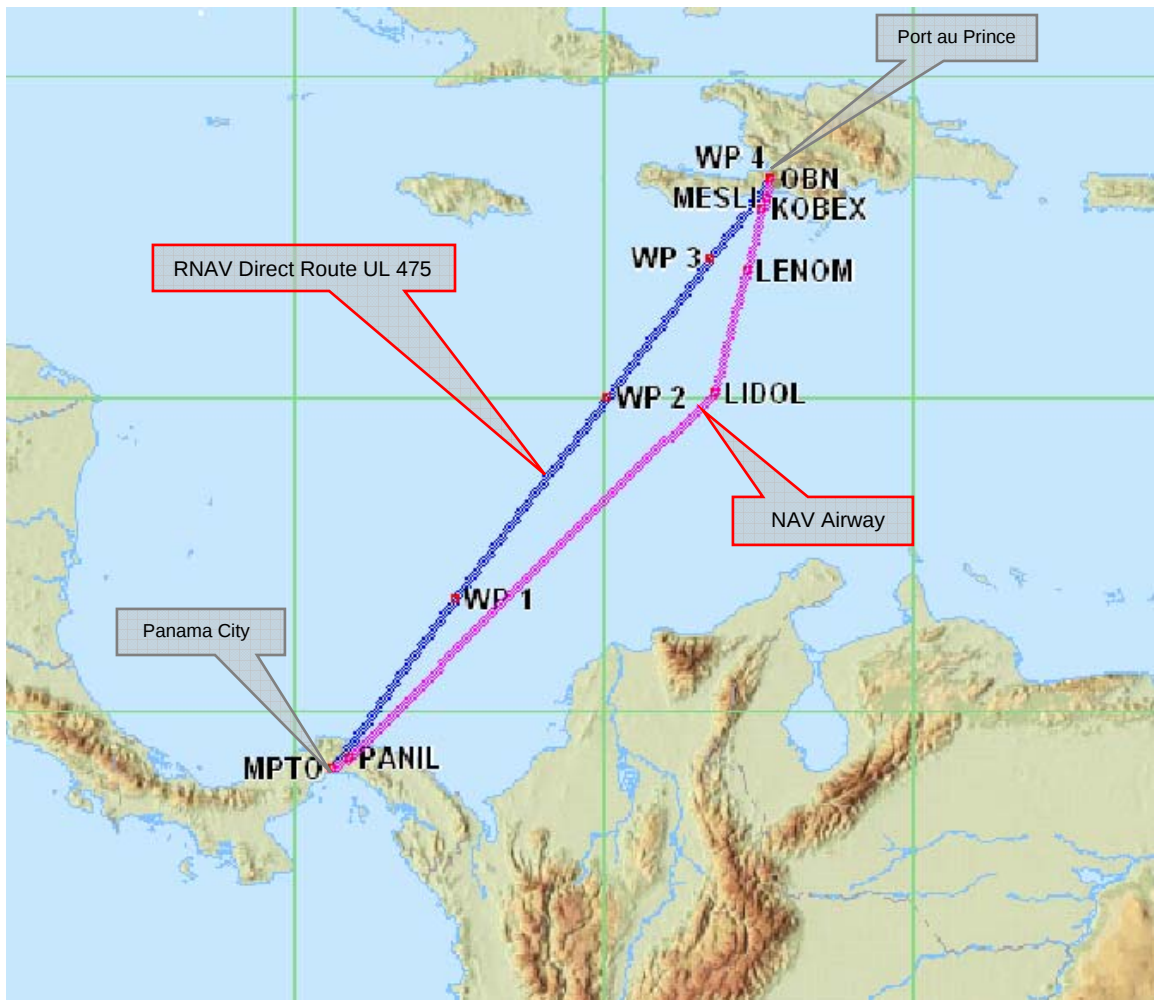


RNAV Route DIDDLE.WAYDE.GRANN / BACUS.FLORI.SIMBA.GRANN
Then A 312.ODKAM

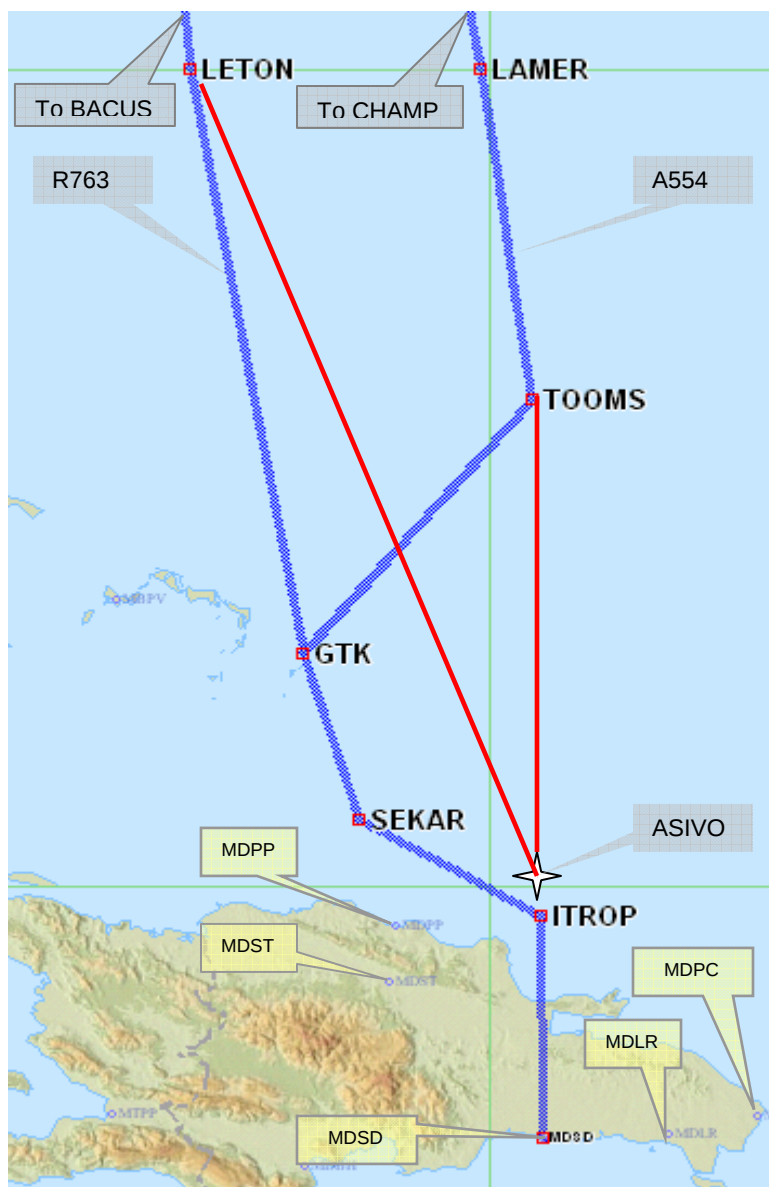


RNAV Route DIDLE.WAYDE.GRANN / BACUS.FLORI.SIMBA.GRANN
Then A 312.ODKAM





RNAV Route ASIVO..TOOMS / ASIVO..LETON



RNAV Route SJO..FIO..SELEK..TADPO..PERMT

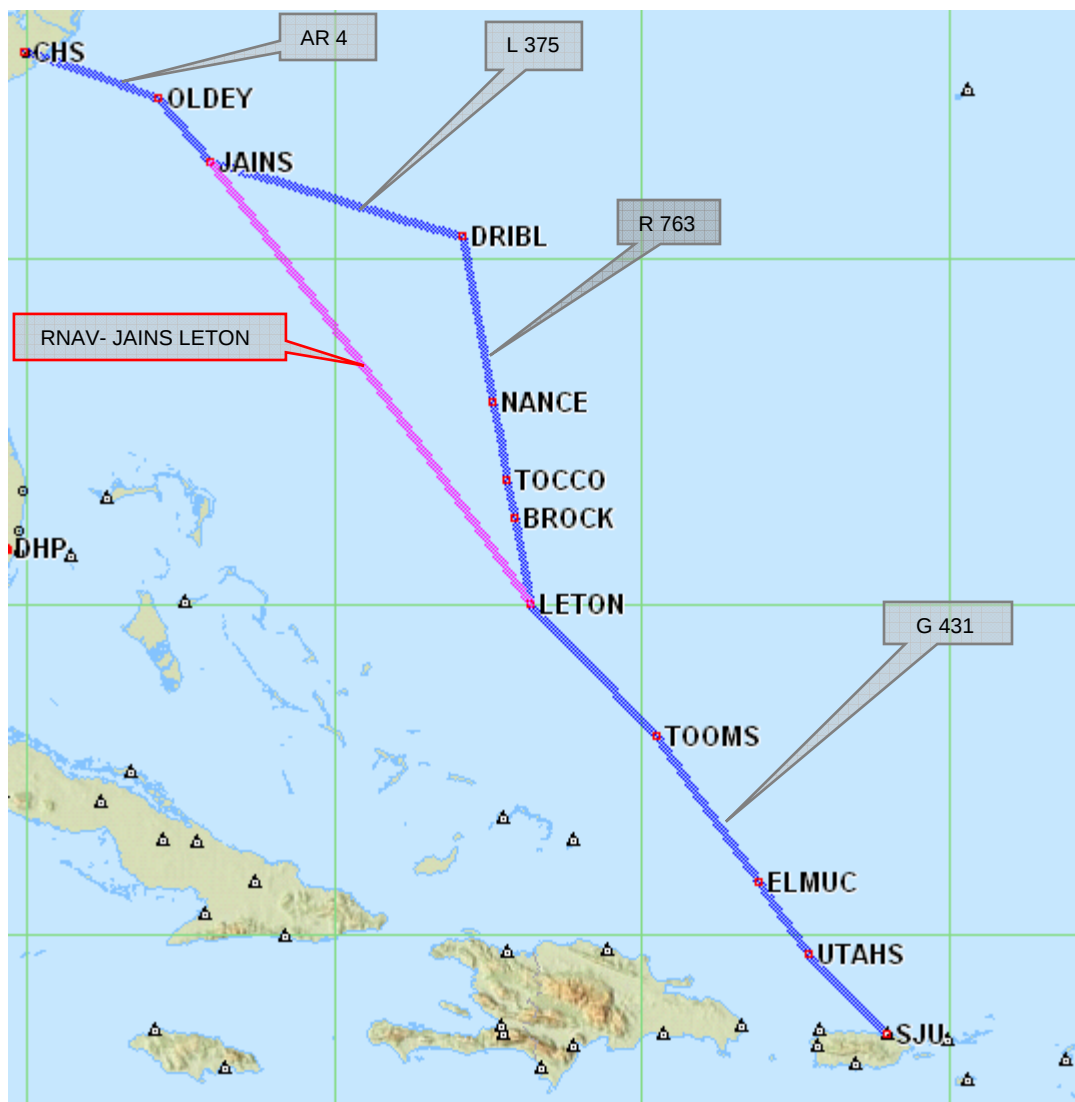


RNAV Route Charlotte Departures And Arrivals over Charleston VOR
To Dominican Rep. Puerto Rico, Aruba and the Eastern Caribbean

Jains to Leton via L 375..R 763 = 543.3 NM

Jains to Leton via RNAV Direct = 469.4 NM

Direct route savings Jains.Leton = 73.9 NM



Havana to Panama City

RNAV Route UL 465

FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	ARCFT TYPE	ETD UTC +5	Savings Summary				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	*Total Operational Savings (USD / YR)
CM231	HAV	PTY	MTWTFSS	B-737-800	13:20	6	1.0	36,633	\$10,935	\$43,741
CM437	HAV	PTY	MTWTFSS	B-737-800	21:35	6	1.0	36,633	\$10,935	\$43,741
CU220	HAV	PTY	**W*F**	B-737	21:35	6	1.0	10,864	\$3,243	\$12,971
TOTAL SAVINGS - ANNUALLY								84,130	\$25,113	\$100,453

*Operational savings include fuel savings.

Consumption data source: Transport Canada 2005

Savings based on flying shortest charted route available.

Panama City to Havana

RNAV Route UL 465

FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	ARCFT TYPE	ETD UTC +5	Savings Summary				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	*Total Operational Savings (USD / YR)
CU230	PTY	HAV	MTWTFSS	B-737-800	0:20	6	1.0	36,633	\$10,935	\$43,741
CU438	PTY	HAV	MTWTFSS	B-737-800	16:08	6	1.0	36,633	\$10,935	\$43,741
CU221	PTY	HAV	**W*F**	B-737	16:08	6	1.0	10,864	\$3,243	\$12,971
TOTAL SAVINGS - ANNUALLY								84,130	\$25,113	\$100,453

*Operational savings include fuel savings.

Consumption data source: Transport Canada 2005

Savings based on flying shortest charted route available.

Panama City to Port Au Prince

RNAV Route UL 475

FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	ARCFT TYPE	ETD UTC +5	Savings Summary				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	*Total Operational Savings (USD / YR)
CM428	PTY	PAP	M**T***	B-737	16:37	22	2.9	32,591	\$9,729	\$38,915
TOTAL SAVINGS - ANNUALLY								32,591	\$9,729	\$38,915
*Operational savings include fuel savings.										
Consumption data source: Transport Canada 2005										
Savings based on flying shortest charted route available.										

Port Au Prince to Panama City

RNAV Route UL 475

FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	ARCFT TYPE	ETD UTC +5	Savings Summary				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	*Total Operational Savings (USD / YR)
US1175	PAP	PTY	M**T***	B-737	20:15	22	2.9	32,591	\$9,729	\$38,915
TOTAL SAVINGS - ANNUALLY								32,591	\$9,729	\$38,915
*Operational savings include fuel savings.										
Consumption data source: Transport Canada 2005										
Savings based on flying shortest charted route available.										

Mexico City - Miami									
RNAV ROUTE, MMMX..DHP..KMIA									
FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	ARCFT TYPE	ETD + 6 = UTC	Savings Summary			
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)
MX301	MEX	MIA	MTWTFSS	A-319	14:00	33	4.4	138,346	\$41,297
AA2198	MEX	MIA	MTWTFSS	B-737-800	16:40	33	4.4	161,189	\$48,116
AM428	MEX	MIA	****F*S	B-737	12:15	33	4.4	47,801	\$14,269
AM428	MEX	MIA	MTWT*S*	MD-80	12:15	33	4.4	131,039	\$39,116
AA2188	MEX	MIA	MTWTFSS	B-757	23:24	33	4.4	230,764	\$68,885
AM422	MEX	MIA	MTWTFSS	B-737/MD-80	20:00	33	4.4	173,705	\$51,852
AM412	MEX	MIA	MTW*FSS	B-737/MD-80	15:15	33	4.4	150,325	\$44,873
AA2114	MEX	MIA	MTWTFSS	B-737-800	12:59	33	4.4	161,189	\$48,116
GCO2201	MEX	MIA	M*W*F**	DC-10F	5:00	33	4.4	222,528	\$66,426
TOTAL SAVINGS - ANNUALLY								1,416,887	\$422,951
*Operational savings include fuel savings.									
Savings based on flying shortest charted route available.									

Miami - Mexico City									
RNAV ROUTE, KMIA..DHP..MMMX									
FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	ARCFT TYPE	ETD UTC + 5	Savings Summary			
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)
MX302	MIA	MEX	MTWTFSS	A-319	12:05	33	4.4	138,346	\$41,297
AA2199	MIA	MEX	MTWTFSS	B-737-800	12:18	33	4.4	161,189	\$48,116
AM429	MIA	MEX	****F*S	B-737	13:00	33	4.4	47,801	\$14,269
AM429	MIA	MEX	MTWT*S*	MD-80	13:00	33	4.4	131,039	\$39,116
AA2177	MIA	MEX	MTWTFSS	B-757	18:50	33	4.4	230,764	\$68,885
AM423	MIA	MEX	MTWTFSS	B-737/MD-80	19:25	33	4.4	173,705	\$51,852
AM413	MIA	MEX	MTW*FSS	B-737/MD-80	0:25	33	4.4	150,325	\$44,873
AA2115	MIA	MEX	MTWTFSS	B-737-800	0:50	33	4.4	161,189	\$48,116
GCO2201	MIA	MEX	M*W*F**	DC-10F	5:00	33	4.4	222,528	\$66,426
TOTAL SAVINGS - ANNUALLY								1,416,887	\$422,951
*Operational savings include fuel savings.									
Savings based on flying shortest charted route available.									

*Total Operational Savings (USD / YR)
\$165,189
\$192,464
\$57,076
\$156,465
\$275,539
\$207,409
\$179,493
\$192,465
\$265,705
\$1,691,805

*Total Operational Savings (USD / YR)
\$165,189
\$192,464
\$57,076
\$156,465
\$275,539
\$207,409
\$179,493
\$192,465
\$265,705
\$1,691,805

North Bound Dom. Republic via. ASIVO RNAV.. LETON and RNAV.. TOOMS

From SDQ.STI.POP.PUJ.LRM

FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	ARCFT TYPE	ETD UTC + 4	Savings Summary				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	* Total Operational Savings (USD / YR)
AC977	SDQ	YYZ	*T*T*S*	A319	23:05	49	6	80,851	\$24,135	\$96,539
AA2084	SDQ	BOS	M*W*FS*	B757-200	21:20	49	6	179,712	\$53,677	\$214,706
AA618	SDQ	JFK	DAILY	A300-600	16:26	49	6	390,000	\$117,349	\$469,385
AA638	SDQ	JFK	DAILY	A300-600	23:20	49	6	390,000	\$117,349	\$469,385
AA780	SDQ	JFK	DAILY	A300-600	12:55	49	6	390,000	\$117,349	\$469,385
DL524	SDQ	JFK	DAILY	B767-300	20:59	49	6	424,788	\$126,672	\$507,256
CO751	SDQ	EWB	DAILY	B757-300	19:10	49	6	314,683	\$93,912	\$375,735
US1496	SDQ	PHL	*****S*	A320	17:45	49	6	28,704	\$8,975	\$34,301
US1274	SDQ	PHL	*****S*	A319	19:30	49	6	26,950	\$8,045	\$32,179
AA1774	STI	JFK	DAILY	A300-600	14:00	8	1	65,156	\$19,583	\$78,231
AA834	STI	JFK	DAILY	A300-600	15:50	8	1	65,156	\$19,583	\$78,231
AA1892	STI	JFK	DAILY	A300-600	17:50	8	1	65,156	\$19,583	\$78,231
B6732	STI	JFK	DAILY	A320	7:15	8	1	33,488	\$9,373	\$40,018
DL314	STI	JFK	DAILY	B767-300	20:15	8	1	70,797	\$21,112	\$84,543
CO737	STI	EWB	DAILY	B737-800	18:45	8	1	33,488	\$9,373	\$40,018
AA1764	PUJ	JFK	DAILY	B757-200	18:03	77	10	524,160	\$78,260	\$626,226
AA1734	PUJ	JFK	**WT**S	B757-200	21:25	77	10	224,640	\$33,540	\$268,382
U5.201	PUJ	EWB	M***F**	A320	15:45	77	10	95,680	\$28,495	\$114,336
CO879	PUJ	EWB	DAILY	B737-800	19:05	77	10	334,880	\$93,912	\$400,182
U5.111	PUJ	PHL	M*W*F**	A320	15:35	77	10	143,520	\$42,274	\$171,506
US280	PUJ	PHL	*****SS	A319	17:20	77	10	89,440	\$26,832	\$107,265
US316	PUJ	BOS	*****S*	A319	20:25	77	10	44,720	\$13,416	\$53,633
AC1847	PUJ	YYZ	**WT**S	A319	16:50	77	10	134,160	\$40,248	\$160,898
US460	PUJ	PHL	DAILY	A319	19:40	77	10	313,040	\$93,912	\$375,430
U5.331	LRM	IAD	*****S*	A320	0:10	78	10	47,840	\$14,248	\$57,168
SAVINGS SUMMARY - ANNUAL SAVINGS								4,511,009	\$1,231,207	\$5,403,169

* Note: total operational savings include fuel savings

South Bound from North East Via.LETON.RNAV..ASIVO and TOOMS.RNAV.. ASIVO

From YYZ.BOS.JFK.EWB.PHL.IAD

FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	ARCFT TYPE	ETD UTC +5	Savings Summary				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	* Total Operational Savings (USD / YR)
AC976	YYZ	SDQ	***T*S*	A319	18:00	49	6	80,851	\$24,135	\$96,539
AA2087	BOS	SDQ	M*W*FS*	B757-200	16:15	49	6	179,712	\$53,677	\$214,706
AA619	JFK	SDQ	DAILY	A300-600	11:30	49	6	390,000	\$117,349	\$469,385
AA635	JFK	SDQ	DAILY	A300-600	18:00	49	6	390,000	\$117,349	\$469,385
AA789	JFK	SDQ	DAILY	A300-600	21:40	49	6	390,000	\$117,349	\$469,385
DL207	JFK	SDQ	DAILY	767-300	13:00	49	6	424,788	\$126,672	\$507,256
CO743	EWB	SDQ	DAILY	B757-300	13:55	49	6	314,683	\$93,912	\$375,735
US1495	PHL	SDQ	*****S*	A320	13:00	49	6	28,704	\$8,975	\$34,301
US1237	PHL	SDQ	*****S*	A319	14:40	49	6	26,950	\$8,045	\$32,179
AA833	JFK	STI	DAILY	A300-600	11:00	8	1	65,156	\$19,583	\$78,231
AA1889	JFK	STI	DAILY	A300-600	13:00	8	1	65,156	\$19,583	\$78,231
DL307	JFK	STI	DAILY	B767-300	15:30	8	1	70,797	\$21,112	\$84,543
AA2355	JFK	STI	DAILY	A300-600	22:20	8	1	65,156	\$19,583	\$78,231
B6.731	JFK	STI	DAILY	A320	2:40	8	1	33,488	\$9,373	\$40,018
AA1781	JFK	PUJ	DAILY	B757-200	13:00	77	10	524,160	\$78,260	\$626,226
AA1733	JFK	PUJ	**WT*S*	B757-200	16:15	77	10	224,640	\$33,540	\$268,382
U5.200	EWB	PUJ	M***F**	A320	11:00	77	10	95,680	\$28,495	\$114,336
CO878	EWB	PUJ	DAILY	B737-800	14:10	77	10	334,880	\$93,912	\$400,182
US315	BOS	PUJ	*****S*	A319	15:30	77	10	44,720	\$13,416	\$53,633
AC1846	YYZ	PUJ	**WT**S	A319	11:30	77	10	134,160	\$40,248	\$160,898
U5.110	PHL	PUJ	M*W*FS*	A320	11:00	77	10	143,520	\$42,274	\$171,506
US429	PHL	PUJ	*****SS	A319	12:30	77	10	89,440	\$26,832	\$107,265
US467	PHL	PUJ	DAILY	A319	14:55	77	10	313,040	\$93,912	\$375,430
U5.330	IAD	LRM	*****S*	A320	19:55	78	10	47,840	\$14,248	\$57,168
SAVINGS SUMMARY - ANNUAL SAVINGS								4,429,681	\$1,207,586	\$5,305,983

* Note: total operational savings include fuel savings

YYZ / NYC / PHL - ANU / BGI / SXM / GRU

New York Departures via DIDDLE..WAYDE..GRANN..A312..ODKAM Route available from 06:00 to 17:40 UTC

FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	ARCFT TYPE	ETD UTC	Savings Summary				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	* Total Operational Savings (USD / YR)
AC1240	CYYZ	TBPB	M****FS*	A319	11:30	33	4.4	59,288	\$17,698	\$70,795
JM94	KJFK	TBPB	M*W*FS*	A320	11:00	33	4.4	84,266	\$25,154	\$100,616
BW427	KJFK	TBPB	DAILY	B737-800	12:45	33	4.4	147,872	\$44,141	\$176,565
AA667	KJFK	TNCM	DAILY	B757-200	13:00	33	4.4	231,398	\$69,074	\$276,296
BW425	KJFK	TTPP	DAILY	B737-700	12:00	33	4.4	147,870	\$44,140	\$176,563
JJ8083	KJFK	SBGR	*****S	A340	13:30	33	4.4	61,704	\$18,419	\$73,674
US455	KPHL	TNCM	*****S*	B757-200	12:40	33	4.4	32,967	\$9,841	\$39,363
RG8863	KJFK	SBGR	***TFSS	B777-200	14:00	33	4.4	253,745	\$75,745	\$302,977
CO871	KEWR	TNCM	DAILY	B757-200	13:55	33	4.4	462,796	\$69,075	\$276,296
TOTAL SAVINGS - ANNUALLY								1,481,906	\$373,287	\$1,493,145

Note: Savings based on flying the shortest comparable charted airway or route Via Flann or Champ.Gabes.A523.Grann. Currently Southbound only. Fuel @ 6.7Lb. Gal.

* Note: total operational savings include fuel savings.

IAD Departures to Eastern Caribbean and GRU

IAD Departures via BACUS..FLORI..SIMBA..GRANN..A312..ODKAM

FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	ARCFT TYPE	ETD UTC	Savings Summary				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	* Total Operational Savings (USD / YR)
UA861	IAD	SBGR	DAILY	B767-300	1:40	68	9	1,274,370	\$380,408	\$1,521,766
UA825	IAD	SBGR	DAILY	B767-300	23:30	68	9	1,274,370	\$380,408	\$1,521,766
BW701	IAD	TBPB	*T**FS*	B737-800	19:40	68	9	258,499	\$77,162	\$308,710
TOTAL SAVINGS - ANNUALLY								2,807,239	\$837,978	\$3,352,242

Note: Savings based on flying the shortest comparable charted airway or route Bacus.Wayde.Jimmy.A523.Grann. Bi-directional. Fuel @ 6.7Lb. Gal.

* Note: total operational savings include fuel savings.

Charlotte Departures via CHS..JAINS..LETON.. to SJU and Eastern Caribbean

RNAV Route .JAINS.LETON.G431.SJU and Eastern Caribbean

FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	ARCFT TYPE	ETD UTC +5	Savings Summary				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	*Total Operational Savings (USD / YR)
US905	CLT	SJU	*****SS	A-320	12:45	73.9	9.9	94,800	\$28,299	\$113,194
US1297	CLT	SJU	MTWTFSS	B-767	14:30	73.9	9.9	649,024	\$193,739	\$774,954
US168	CLT	SJU	MTWTFSS	B-767	16:40	73.9	9.9	649,024	\$193,739	\$774,954
US303	CLT	ANU	*****S*	A-320	14:45	73.9	9.9	47,400	\$14,149	\$56,597
US299	CLT	STT	*****S*	B-757	14:30	73.9	9.9	74,174	\$22,142	\$88,566
US1480	CLT	STT	MTWTFSS	B-757	16:30	73.9	9.9	519,219	\$154,991	\$619,963
US675	CLT	STX	*****S*	A-319	16:20	73.9	9.9	44,469	\$13,274	\$53,097
US295	CLT	PUJ	MTWTFSS	A-319	14:30	73.9	9.9	622,556	\$185,838	\$743,350
US567	CLT	PUJ	MTWTFSS	A-320	16:50	73.9	9.9	663,600	\$198,090	\$792,358
US673	CLT	AUA	*****S*	A-319	14:20	73.9	9.9	44,469	\$13,274	\$53,097
US979	CLT	AUA	MTWTFSS	B-757	16:25	73.9	9.9	519,219	\$154,991	\$619,963
US229	CLT	SXM	*****SS	B-757	14:20	73.9	9.9	148,348	\$44,283	\$177,132
US877	CLT	SXM	MTWTFSS	B-757	16:25	73.9	9.9	519,219	\$154,991	\$619,963
US293	CLT	SKB	*****S*	A-319	16:10	73.9	9.9	44,469	\$13,274	\$53,097
US241	CLT	UVF	*****SS	A-319	14:40	73.9	9.9	88,937	\$26,549	\$106,194
US1131	CLT	BGI	MTWTFSS	A-319	14:40	73.9	9.9	311,278	\$92,919	\$371,675
TOTAL SAVINGS - ANNUALLY								5,040,204	\$1,504,539	\$6,018,154

*Operational savings include fuel savings.

Consumption data source: Transport Canada 2005

Savings based on flying shortest charted route available.

SJU and Eastern Caribbean Departures via LETON..JAINS..CHS..to Charlotte

RNAV Route .JAINS.LETON.G431.SJU and Eastern Caribbean

FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	ARCFT TYPE	ETD UTC +4	Savings Summary				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	*Total Operational Savings (USD / YR)
US1175	SJU	CLT	*****SS	A-320	16:05	73.9	9.9	94,800	\$28,299	\$113,194
US968	SJU	CLT	MTWTFSS	B-767	18:10	73.9	9.9	649,024	\$193,739	\$774,954
US791	SJU	CLT	MTWTFSS	B-767	21:20	73.9	9.9	649,024	\$193,739	\$774,954
US304	ANU	CLT	*****S*	A-320	19:50	73.9	9.9	47,400	\$14,149	\$56,597
US298	STT	CLT	*****S*	B-757	18:00	73.9	9.9	74,174	\$22,142	\$88,566
US1481	STT	CLT	MTWTFSS	B-757	20:20	73.9	9.9	519,219	\$154,991	\$619,963
US676	STX	CLT	*****S*	A-319	19:55	73.9	9.9	44,469	\$13,274	\$53,097
US871	PUJ	CLT	MTWTFSS	A-319	18:45	73.9	9.9	622,556	\$185,838	\$743,350
US798	PUJ	CLT	MTWTFSS	A-320	20:10	73.9	9.9	663,600	\$198,090	\$792,358
US674	AUA	CLT	*****S*	A-319	17:00	73.9	9.9	44,469	\$13,274	\$53,097
US978	AUA	CLT	MTWTFSS	B-757	19:55	73.9	9.9	519,219	\$154,991	\$619,963
US940	SXM	CLT	*****SS	B-757	17:55	73.9	9.9	148,348	\$44,283	\$177,132
US714	SXM	CLT	MTWTFSS	B-757	20:10	73.9	9.9	519,219	\$154,991	\$619,963
US292	SKB	CLT	*****S*	A-319	19:55	73.9	9.9	44,469	\$13,274	\$53,097
US242	UVF	CLT	*****SS	A-319	18:55	73.9	9.9	88,937	\$26,549	\$106,194
US1130	BGI	CLT	MTWTFSS	A-319	19:05	73.9	9.9	311,278	\$92,919	\$371,675
TOTAL SAVINGS - ANNUALLY								5,040,204	\$1,504,539	\$6,018,154

*Operational savings include fuel savings.

Consumption data source: Transport Canada 2005

Savings based on flying shortest charted route available.

San Jose, Liberia departure via..FIO.. To US (MIA.MCO.ATL.EWR.PHL.JFK.YYZ.)

Savings Summary - SELEK..TADPO.

FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	AIRCRAFT TYPE	ETD UTC + 6	SAVINGS SUMMARY				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	* Total Operational Savings (USD / YR)
AC999	MROC	CYYZ	M**W**S*	A319	20:25	5	1	14,352	\$4,264.00	\$16,068
AA2136	MROC	KJFK	M****SS	B757-200	23:55	5	1	22,646	\$6,708.00	\$26,666
LR660	MROC	KJFK	DAILY	A-320	0:25	5	1	33,488	\$9,976.00	\$40,000
CO1797	MROC	KEWR	DAILY	B737-800	13:30	5	1	36,500	\$10,950.00	\$43,800
CO1791	MRLB	KEWR	*****S*	B737-800	18:25	5	1	5,200	\$1,560.00	\$6,240
CO1761	MROC	KEWR	DAILY	B737-800	19:15	5	1	36,500	\$10,950.00	\$43,800
US1498	MROC	KPHL	*****S*	A320	20:40	5	1	4,784	\$1,421.00	\$5,703
DL1742	MROC	KATL	DAILY	B757-200	15:00	5	1	52,416	\$15,695.00	\$62,625
DL564	MROC	KATL	DAILY	B757-200	21:00	5	1	52,416	\$15,695.00	\$62,625
DL366	MRLB	KATL	DAILY	B757-200	20:17	5	1	52,416	\$15,695.00	\$62,625
DL692	MRLB	KATL	*****S*	B737-800	13:00	5	1	5,200	\$1,560.00	\$6,240
MP636	MROC	KMCO	M**TF**	A320	20:50	5	1	14,352	\$4,290.00	\$17,160
LR690	MROC	KMIA	DAILY	A319	0:10	5	1	31,572	\$9,490.00	\$37,600
AA2130	MRLB	KMIA	DAILY	B757-200	17:48	5	1	52,416	\$15,695.00	\$62,625
AA1700	MROC	KMIA	DAILY	A300-600	13:00	5	1	65,700	\$19,710.00	\$78,262
AA2108	MROC	KMIA	DAILY	B757-200	15:13	5	1	52,416	\$15,695.00	\$62,625
AA988	MROC	KMIA	DAILY	B737-800	18:39	5	1	36,500	\$10,950.00	\$43,680
AA972	MROC	KMIA	DAILY	A300-600	20:47	5	1	65,700	\$19,710.00	\$78,260
MP646	MROC	KMIA	*TW**SS	A320	20:55	5	1	19,137	\$5,720.00	\$22,880
TOTAL SAVINGS - ANNUALLY								653,711	\$195,734.00	\$779,484

* Note: Total operational savings include fuel savings.

South Bound

Savings Summary - TADPO..SELEK.

FLIGHT NUMBER	FROM	TO	WEEKLY FERQ.	AIRCRAFT TYPE	ETD UTC + 5	SAVINGS SUMMARY				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	* Total Operational Savings (USD / YR)
AC998	CYYZ	MROC	M**W**S*	A319	13:55	5	1	14,352	\$4,264.00	\$16,068
AA2135	KJFK	MROC	M****SS	B757-200	16:30	5	1	22,646	\$6,708.00	\$26,666
LR661	KJFK	MROC	DAILY	A320	10:25	5	1	33,488	\$9,976.00	\$40,000
CO1796	KEWR	MROC	DAILY	B737-800	22:05	5	1	36,500	\$10,950.00	\$43,800
CO1762	KEWR	MROC	DAILY	B737-800	13:00	5	1	36,500	\$10,950.00	\$43,800
CO1782	KEWR	MRLB	*****S*	B737-800	13:15	5	1	5,200	\$1,560.00	\$6,240
US1497	KPHL	MROC	*****S*	A320	14:30	5	1	4,784	\$1,421.00	\$5,703
DL1759	KATL	MROC	DAILY	B757-200	15:47	5	1	52,416	\$15,695.00	\$62,625
DL691	KATL	MRLB	****F**	B737-800	21:50	5	1	5,200	\$1,560.00	\$6,240
DL865	KATL	MROC	DAILY	B757-200	23:22	5	1	52,416	\$15,695.00	\$62,625
DL295	KATL	MRLB	DAILY	B757-200	16:07	5	1	52,416	\$15,695.00	\$62,625
MP635	KMCO	MROC	M**TF**	A320	1:00	5	1	14,352	\$4,290.00	\$17,160
AA2127	KMIA	MRLB	DAILY	B737-800	15:56	5	1	52,416	\$15,695.00	\$62,625
LR691	KMIA	MROC	DAILY	A319	12:00	5	1	31,572	\$9,490.00	\$37,600
AA937	KMIA	MROC	DAILY	A300-600	18:36	5	1	65,700	\$19,710.00	\$78,262
AA2141	KMIA	MROC	DAILY	B757-200	0:34	5	1	52,416	\$15,695.00	\$62,625
AA971	KMIA	MROC	DAILY	B737-800	14:46	5	1	36,500	\$10,950.00	\$43,680
AA2171	KMIA	MROC	DAILY	A300-600	21:35	5	1	65,700	\$19,710.00	\$78,260
MP645	KMIA	MROC	*TW**SS	A320	1:15	5	1	19,137	\$5,720.00	\$22,880
TOTAL SAVINGS - ANNUALLY								653,711	\$195,734.00	\$779,484

* Note: Total operational savings include fuel savings.

San Jose, Liberia departure via..FIO.. To US (MIA.MCO.ATL.EWR.PHL.JFK.YYZ.)

SJO and LIR via FIO..UL403..SELEK..TADPO..PERMT to East Coast

FLIGHT NUMBER	FROM	TO	WEEKLY FREQ.	AIRCRAFT TYPE	ETD UTC + 6	SAVINGS SUMMARY				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	* Total Operational Savings (USD / YR)
AC999	MROC	CYYZ	M*W**S*	A319	20:25	16	3	43,056	\$12,792.00	\$48,204
AA2136	MROC	KJFK	M****SS	B757-200	23:55	16	3	67,392	\$20,124.00	\$80,000
LR660	MROC	KJFK	DAILY	A-320	0:25	16	3	100,464	\$29,930.00	\$120,000
CO1797	MROC	KEWR	DAILY	B737-800	13:30	16	3	109,500	\$32,850.00	\$131,400
CO1791	MRLB	KEWR	*****S*	B737-800	18:25	16	3	15,600	\$4,680.00	\$18,720
CO1761	MROC	KEWR	DAILY	B737-800	19:15	16	3	109,500	\$32,850.00	\$131,400
US1498	MROC	KPHL	*****S*	A320	20:40	16	3	14,352	\$4,265.00	\$17,110
DL1742	MROC	KATL	DAILY	B757-200	15:00	11	2	104,832	\$31,390.00	\$125,250
DL564	MROC	KATL	DAILY	B757-200	21:00	11	2	104,832	\$31,390.00	\$125,250
DL366	MRLB	KATL	DAILY	B757-200	20:17	11	2	104,832	\$31,390.00	\$125,250
DL692	MRLB	KATL	*****S*	B737-800	13:00	11	2	10,400	\$3,120.00	\$12,480
MP636	MROC	KMCO	M**TF**	A320	20:50	11	2	28,704	\$8,580.00	\$34,320
LR690	MROC	KMIA	DAILY	A319	0:10	11	2	63,145	\$18,980.00	\$75,200
AA2130	MRLB	KMIA	DAILY	B757-200	17:48	11	2	104,832	\$31,390.00	\$125,250
AA1700	MROC	KMIA	DAILY	A300-600	13:00	11	2	131,400	\$39,420.00	\$156,525
AA2108	MROC	KMIA	DAILY	B757-200	15:13	11	2	104,832	\$31,390.00	\$125,250
AA988	MROC	KMIA	DAILY	B737-800	18:39	11	2	73,000	\$21,900.00	\$87,360
AA972	MROC	KMIA	DAILY	A300-600	20:47	11	2	131,400	\$39,420.00	\$156,520
MP646	MROC	KMIA	*TW**SS	A320	20:55	11	2	38,275	\$11,440.00	\$45,760
TOTAL SAVINGS - ANNUALLY								1,460,348	\$437,301.00	\$1,741,249

* Note: Total operational savings include fuel savings.

South Bound

MIA.MCO.ATL.PHL.EWR.JFK.YYZ to SJO and LIR

FLIGHT NUMBER	FROM	TO	WEEKLY FERQ.	AIRCRAFT TYPE	ETD UTC + 5	SAVINGS SUMMARY				
						Distance Saved	Minutes Saved	Annual Fuel Lbs. Saved	Fuel Savings @ \$2.00/Gal. (USD / YR)	* Total Operational Savings (USD / YR)
AC998	CYYZ	MROC	M*W**S*	A319	13:55	16	3	43,056	\$12,792.00	\$48,204
AA2135	KJFK	MROC	M****SS	B757-200	16:30	16	3	67,392	\$20,124.00	\$80,000
LR661	KJFK	MROC	DAILY	A320	10:25	16	3	100,464	\$29,930.00	\$120,000
CO1796	KEWR	MROC	DAILY	B737-800	22:05	16	3	109,500	\$32,850.00	\$131,400
CO1762	KEWR	MROC	DAILY	B737-800	13:00	16	3	109,500	\$32,850.00	\$131,400
CO1782	KEWR	MRLB	*****S*	B737-800	13:15	16	3	15,600	\$4,680.00	\$18,720
US1497	KPHL	MROC	*****S*	A320	14:30	16	3	14,352	\$4,265.00	\$17,110
DL1759	KATL	MROC	DAILY	B757-200	15:47	11	2	104,832	\$31,390.00	\$125,250
DL691	KATL	MRLB	****F**	B737-800	21:50	11	2	10,400	\$3,120.00	\$12,480
DL865	KATL	MROC	DAILY	B757-200	23:22	11	2	104,832	\$31,390.00	\$125,250
DL295	KATL	MRLB	DAILY	B757-200	16:07	11	2	104,832	\$31,390.00	\$125,250
MP635	KMCO	MROC	M**TF**	A320	1:00	11	2	28,704	\$8,580.00	\$34,320
AA2127	KMIA	MRLB	DAILY	B737-800	15:56	11	2	104,832	\$31,390.00	\$125,250
LR691	KMIA	MROC	DAILY	A319	12:00	11	2	63,145	\$18,980.00	\$75,200
AA937	KMIA	MROC	DAILY	A300-600	18:36	11	2	131,400	\$39,420.00	\$156,525
AA2141	KMIA	MROC	DAILY	B757-200	0:34	11	2	105,120	\$31,390.00	\$125,215
AA971	KMIA	MROC	DAILY	B737-800	14:46	11	2	73,000	\$21,900.00	\$87,360
AA2171	KMIA	MROC	DAILY	A300-600	21:35	11	2	131,400	\$39,420.00	\$156,520
MP645	KMIA	MROC	*TW**SS	A320	1:15	11	2	38,275	\$11,440.00	\$45,760
TOTAL SAVINGS - ANNUALLY								1,460,636	\$437,301.00	\$1,741,214

* Note: Total operational savings include fuel savings.