

# FF5000

## Value Proposition Model



Freight Feeder™

AIRCRAFT CORPORATION

# "Twice the Load - Half the Cost"



## FF5000 vs. ATR-72

Freight feeder Aircraft Corporation has prepared the following FF5000 Value Proposition Model using an actual air cargo feeder operation. This study will demonstrate how the FF5000 can bring significant saving and profitability to any operator using the innovative FF5000 Freight Feeder Aircraft. Although every cargo operation varies, the FF5000's mission specific design proves to be just the tool to accommodate any operator's transportation needs. In this scenario, the FF5000 was able to replace two ATR-72 regional turboprop aircraft and thus providing significant savings and profitability to the operator's bottom line.

The most commonly used feeder aircraft currently in use today is the ATR-72, a non-main deck container capable aircraft - originally designed for passengers - recently converted to cargo configuration. The FF5000 was designed for freight and can transport twice the load of the ATR-72 and do so at half the cost. Its capability to transport standard industry main deck containers reduces loading and unloading ground time which affords it the ability to fly additional route segments. Thus replacing older and inefficient feeder aircraft in use today.

This Value Proposition Model will compare the overall costs of the FF5000 to the ATR-72 based on the following feed segment scenario. The study will show how the FF5000 can replace the use of two ATR-72 aircraft and still provide significant saving in the operating costs on these route segments.

The FF5000 - "**Twice the Load - Half the Cost**"

## FF5000 Route Assumptions

Express freight is flown into Melbourne on a 747 freighter utilizing main deck containers. It is then transported by air to Sydney and Brisbane. There is a 17,000 lb lift requirement for these cities in addition to the flight time

DEP	ARV	Dist	Payload	Flt Time	Gnd Time
MEL	SYD	380	35,525	1:40	15 min
SYD	BNE	406	35,270	1:46	15 min
BNE	SYD	406	35,270	1:46	15 min
SYD	MEL	380	35,525	1:40	15 min

One FF5000 Freight Feeder is required on this route segment because of its 45,188 lb useful load capability and its time saving use of containerization. The FF5000 can depart MEL 45 min early than the ATR-72 because of its



## ATR 72 Route Assumptions

DEP	ARV	Dist	Payload	Flt Time	Gnd Time
MEL	SYD	380	17,713	1:36	1 hr
SYD	MEL	380	17,713	1:36	1 hr
MEL	BNE	745	15,009	2:57	1 hr
BNE	MEL	745	15,009	2:57	1 hr



Two ATR-72 aircraft are required on these route segments due to its 15,009lb /745 nm range/payload limitation and its non-container capable design requiring longer ground handling time - up to 1 hour.



## FF5000 Performance Assumptions



### Aircraft Weights (lb)

MTOW	MLW	MZFW	BEW	Payload	Max Fuel
85,800	83,900	80,800	40,612	45,188	21,000

### General Assumptions

Container Tare Weights (lbs)	772	M-1 (Main Deck)
Container Capacity	6	
Alternate Distances (nm)	87	
Cruise Speed (kts)	255	
Climb (kts)	160	
Taxi (min)	12	

## ATR 72 Performance Assumptions



### Aircraft Weights (lb)

MTOW	MLW	MZFW	BEW	Payload	Max Fuel
47,400	46,500	44,902	25,675	21,725	11,023

### General Assumptions

Container Tare Weights (lbs)	0	non- container capable
Container Capacity	0	
Alternate Distances (nm)	87	
Cruise Speed (kts)	270	
Climb (kts)	160	
Taxi (min)	12	

# FF5000 Route Performance Analysis



		ROUTE				TIME			FUEL (lbs)			WEIGHTS (lbs)		
Flt	Depart	Arrive	Dist	Winds	FL	Flight	Block	Flight	Block	Res	Total	Maximum	Revenue	Landing
1	MEL	SYD	380	0	240	1:40	1:52	2,941	3131	1500	4631	35,525	17,135	74,592
2	SYD	BNE	406	0	250	1:46	1:58	3,196	3386	1500	4886	35,270	15,345	57,457
3	BNE	SYD	406	0	240	1:46	1:58	3,196	3386	1500	4886	35,270	6,896	49,008
4	SYD	MEL	380	0	250	1:40	1:52	2,941	3131	1500	4631	35,525	7,487	56,495

# ATR 72 Route Performance Analysis



		ROUTE				TIME			FUEL (lbs)			WEIGHTS (lbs)		
Flt	Depart	Arrive	Dist	Winds	FL	Flight	Block	Flight	Block	Res	Total	Maximum	Revenue	Landing
1	MEL	SYD	380	0	250	1:36	1:48	2,222	2412	1200	3612	17,713	17,135.0	44,010
2	SYD	MEL	380	0	240	1:36	1:48	2,222	2412	1200	3612	17,713	7,487.0	34,362
3	MEL	BNE	745	0	250	2:57	3:09	4,926	5116	1200	6316	15,009	15,345.0	42,220
4	BNE	MEL	745	0	240	2:57	3:09	4,926	5116	1200	6316	15,009	6,896.0	33,771

## General Economic Assumptions

### Aircraft Utilization

Annual Utilization	260	Days per year - excluding holidays	<a href="#">Source</a> Pionair
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### Insurance

Hull Insurance	1%		FFAC
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### Operating Costs

Fuel	3.10	USD per gallon	IATA
Overheads	100,000	USD per aircraft per year	FFAC
Flight Crew	195	Per/FH includes instruction, expenses, benefits, taxes	NBAA
Landing Fees	3.00	USD per tonne	IATA
Enroute Charges	0.22	USD per NM	

### Revenue Payload

Revenue Pound	\$0.50	USD per revenue lb	Pionair
MEL - SYD	17,135	Avg. daily revenue pounds - excluding Dec.	
SYD - MEL	7,487	Avg. daily revenue pounds - excluding Dec.	
MEL - BNE	15,345	Avg. daily revenue pounds - excluding Dec.	
BNE - MEL	6,896	Avg. daily revenue pounds - excluding Dec.	

### Maintenance

Burdened labor Rate	28.00	USD per man hour (MH)	NBAA
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### Ground Handling

Labor	22.50	USD per man hour (MH)	NBAA
Equipment	50.00	USD per hour (belt loader, tug, forklift)	

\* Includes all payroll taxes, health insurance, workman's compensation costs

## FF5000 Economic Assumptions

### Ownership - Hull

Purchase Price	16.5 M - New aircraft list price - For study insurance purposes	FFAC
Annual Finance Costs	5.5 % Interest rate	CITI
Term	15 year - term	

Source

### Maintenance

Parts & Materials	150.00 Per flight hour	
Engine Reserves	175.00 per flight hour	FFAC
Maintenance Burden	75,000 Per aircraft per year	Pratt
Line Labor	0.7 MH/FH	FFAC

FFAC

### Ground Handling

0.5	<b>LABOR</b> Man hours per flight	FFAC
0.25	<b>EQUIPMENT</b> hours per flight	FFAC

## ATR 72 Economic Assumptions

### Aircraft Acquisition

Purchase Price	8.5 M - Used aircraft price with cargo conversion	EADS
Annual Finance Costs	7.1 % Interest rate	CONT
Term	12 year - term	CITI

Source

### Maintenance

Parts & Materials	165.00 Per flight hour	EADS
Engine Reserves	155.00 per flight hour	Pratt
Maintenance Burden	100,000 Per aircraft per year	EADS
Line Labor	1.3 MH/FH	EADS

EADS

### Ground Handling

7	<b>LABOR</b> Man hours per flight	
1	<b>EQUIPMENT</b> hours per flight	FFAC

FFAC

## Economic Performance

	FF5000				ATR 72			
<b>Market</b>								
Origin (IATA)	MEL	SYD	BNE	SYD	MEL	SYD	MEL	BNE
Destination (IATA)	SYD	BNE	SYD	MEL	SYD	MEL	BNE	MEL
Distance (nm)	380	406	406	380	380	380	745	745
<b>Operational</b>								
Revenue Payload (lb)	17,135	7,487	15,345	6,896	17,135	7,487	15,009	6,896
Block Time (hr/min)	1:52	1:58	1:58	1:52	1:48	1:48	3:09	3:09
Block Fuel (lb)	3,131	3,386	3,386	3,131	2,412	2,412	5,116	5,116
<b>Operating Costs (USD)</b>								
Fuel	\$1,449	\$1,567	\$1,567	\$1,449	\$1,116	\$1,116	\$2,367	\$2,367
Line Maintenance	\$29	\$31	\$31	\$29	\$51	\$51	\$100	\$100
Parts & Materials	\$224	\$239	\$239	\$224	\$232	\$232	\$455	\$455
Engines	\$261	\$279	\$279	\$261	\$218	\$218	\$428	\$428
Ownership	\$1,506	\$1,506	\$1,506	\$1,506	\$2,019	\$2,019	\$2,019	\$2,019
Insurance	\$159	\$159	\$159	\$159	\$163	\$163	\$163	\$163
Landing Fee	\$112	\$86	\$74	\$85	\$66	\$52	\$63	\$51
Enroute Charges	\$45	\$48	\$48	\$45	\$45	\$45	\$88	\$88
Flight Crew	\$291	\$310	\$310	\$291	\$274	\$274	\$538	\$538
Ground Handling	\$24	\$24	\$24	\$24	\$208	\$208	\$208	\$208
<b>Direct Operating Costs</b>	<b>\$4,098</b>	<b>\$4,248</b>	<b>\$4,236</b>	<b>\$4,047</b>	<b>\$4,393</b>	<b>\$4,379</b>	<b>\$6,431</b>	<b>\$6,418</b>
Overheads	\$96	\$96	\$96	\$96	\$192	\$192	\$192	\$192
Maint. Burden	\$72	\$72	\$72	\$72	\$192	\$192	\$192	\$192
<b>Total Operating Costs</b>	<b>\$4,266</b>	<b>\$4,416</b>	<b>\$4,404</b>	<b>\$4,215</b>	<b>\$4,778</b>	<b>\$4,764</b>	<b>\$6,815</b>	<b>\$6,802</b>

# FF5000

## Value Proposition Summary



Annual Totals	FF5000	ATR 72	FF5000 Value
Block Hours	1,469	2,574	<b>43% Less flight time</b>
Flight Crew	\$286,455	\$501,930	<b>43% more efficient payroll</b>
Ground Handling	\$24,700	\$215,800	<b>874% savngs in labor expenses</b>
Ownership Costs	\$1,565,760	\$2,100,000	<b>25% Less finance costs</b>
Total Maintenance	\$552,333	\$772,200	<b>28% Less maintenance</b>
<b>Direct Operating Costs</b>	<b>\$4,323,398</b>	<b>\$5,621,444</b>	<b>23% Less direct costs</b>
<b>Total Operating Costs</b>	<b>\$4,498,398</b>	<b>\$6,021,444</b>	<b>25% better operating costs</b>
Annual Revenue	\$6,092,190	\$6,048,520	
<b>Net Income</b> (Before Taxes)	<b>\$1,593,792</b>	<b>\$27,076</b>	<b>← \$1,566,716 additional profit</b>

This value proposition study demonstrates the extraordinary value of the FF5000 Freight Feeder Aircraft in the world wide freight feed air cargo market. Just one FF5000 aircraft can make a significant difference on a typical air cargo operators bottom line. In this scenerio - the FF5000 created more than **\$1,500,000** in additional profits for this operator in only 1 year by using the same amount of revenue. The FF5000 also has the ability to drastically increase revenues with its innovative features, thus expanding air cargo operations worldwide.

This study has identified some of the many economic benefits of the FF5000 on just one route segment. Rising profits and efficiencies are a by-product of adding additional FF5000 aircraft to a any operators freight network. The FF5000 can transport twice the load of any aircraft in its class at half the operating costs. This provides real value and a tremendous competitive advantge to any operator in the world today.



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