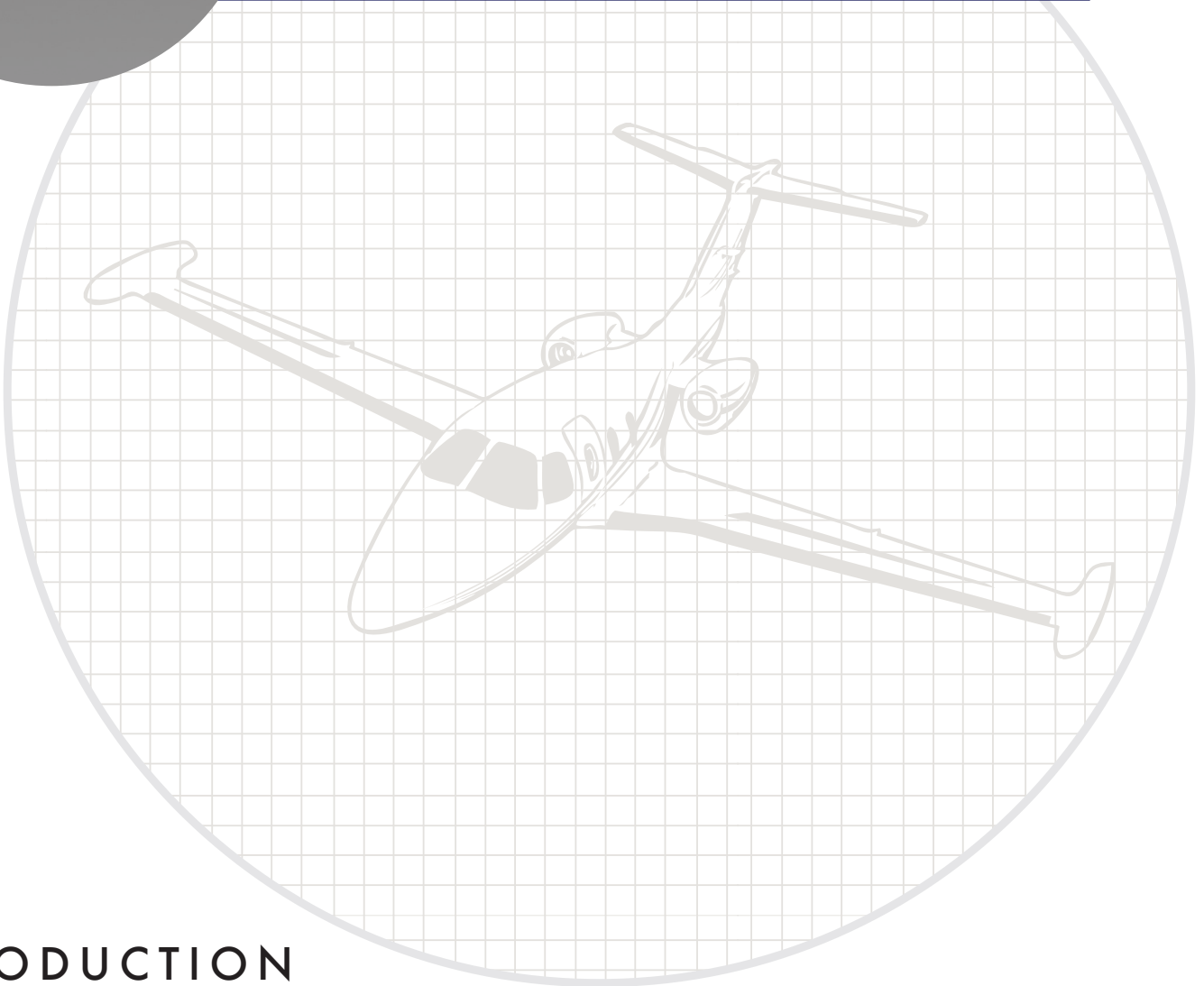


# ECLIPSE 550

Eclipse vs. Mustang  
OPERATING ECONOMICS



## INTRODUCTION

This Operating Economics guide is a comparison tool for estimating the operating costs of a new, typically-equipped, Eclipse 550 versus a similarly equipped Citation Mustang. The actual operating costs of an aircraft will vary according to mission profiles flown, types of airports used, maintenance practices, geographical location and utilization. Cost may vary given optional items ordered with the aircraft.

Citation Mustang data source: Cessna's 'Citation Mustang: Guide to Operating Economics,' published February 2012 and Mustang AFM.

Eclipse 550 data source: Actual performance numbers as compiled by the manufacturer and published in the AFM.



**ECLIPSE**  
AEROSPACE

# ECLIPSE 550 VS CITATION MUSTANG

In the following pages, the Eclipse 550 and Citation Mustang are compared with regard to speed, fuel consumption, direct operating cost, fixed annual costs, and the total annual budget. In each of these categories, the Eclipse 550 has the competitive advantage.

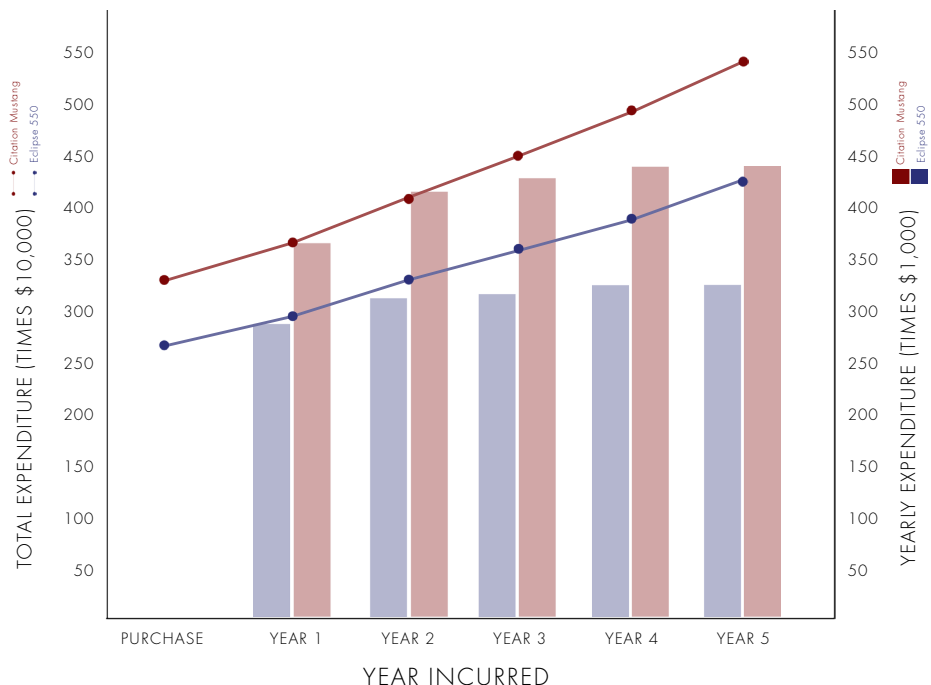
When reviewing the total annual expenditure based upon 400 hours of utilization per year, the total savings over the first five years is \$512,721. That's a 28% percent savings when comparing the two aircraft based upon number of hours flown. Compare the two based upon the number of nautical miles flown over those 400 hours and the advantage leaps to a 33% savings (\$1.09 savings per nm).

Did we mention the fact that the Eclipse 550's acquisition cost is \$630,000 less than the Mustang?

**Want to SAVE \$1,142,721 on your jet purchase? BUY an ECLIPSE 550.**

Aircraft	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang
DOC (400 hrs)	\$259,200	\$327,340	\$276,840	\$361,740	\$280,640	\$380,320	\$291,280	\$391,500	\$291,280	\$391,500
Fixed Cost	\$ 27,907	\$ 36,742	\$ 35,747	\$ 48,442	\$ 35,747	\$ 48,442	\$ 35,747	\$ 48,442	\$ 35,747	\$ 48,442
Total Annual	\$287,107	\$364,082	\$312,587	\$410,182	\$316,387	\$428,762	\$326,627	\$439,942	\$326,627	\$439,942
\$/ nm	\$ 2.05	\$ 2.91	\$ 2.23	\$ 3.28	\$ 2.26	\$ 3.42	\$ 2.33	\$ 3.51	\$ 2.33	\$ 3.51

Based on 400 hours of annual utilization, using the total block speed used in the cost per nautical mile calculation under Direct Operating Cost section. For the Eclipse, this is 331kts; for the Mustang, this is 316 kts. 1kt = 1 nm/hr. This gives the total nautical miles covered in the 400 hours of utilization per year (Eclipse = 140,000 nm, Mustang = 125,200 nm).



INCLUDING THE PURCHASE PRICE OF EACH AIRCRAFT, FLYING 400 HOURS PER YEAR FOR FIVE YEARS IN AN **ECLIPSE JET** VERSUS A **MUSTANG** WILL SAVE YOU **\$1,142,721.**

**SAVINGS CALCULATOR:**  
*(5-year totals below)*  
 DOC: \$ 453,106  
 Fixed: \$ 59,615  
 Purchase: \$ 630,000  
**Total: \$1,142,721**

## LABOR ESTIMATES

	YEAR 1 <i>(per flight hour)</i>		YEAR 2 <i>(per flight hour)</i>		YEAR 3 <i>(per flight hour)</i>		YEAR 4 <i>(per flight hour)</i>		YEAR 5 <i>(per flight hour)</i>	
	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang
Aircraft	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang
Man-Hours	0.25	0.5	0.4	0.7	0.5	0.9	0.54	1.0	0.54	1.0
Labor Dollars	\$23.75	\$53.50	\$38.00	\$74.90	\$47.50	\$96.30	\$51.30	\$107.00	\$51.30	\$107.00

These figures are averages based on aircraft utilization of 400 hours per year and reflect consideration for the applicable warranty period without CPI. Labor hours vary according to utilization, maintenance, operating practices, and location. Assumed shop rate is \$95 / hr for the Eclipse and \$107 / hr for the Mustang.

## PARTS ESTIMATES

	YEAR 1 <i>(per flight hour)</i>		YEAR 2 <i>(per flight hour)</i>		YEAR 3 <i>(per flight hour)</i>		YEAR 4 <i>(per flight hour)</i>		YEAR 5 <i>(per flight hour)</i>	
	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang
Aircraft	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang
Parts Cost	\$22.65	\$22.65	\$52.50	\$87.25	\$52.50	\$101.20	\$52.50	\$107.35	\$52.50	\$107.35

Parts cost are based on typical aircraft utilization. Costs do not reflect CPI.

## ENGINE RESERVES

CUMULATIVE ENGINE HOURS	ECLIPSE RATE <i>(2 Engines, per flight hour)</i>	MUSTANG RATE <i>(2 Engines, per flight hour)</i>	ECLIPSE ADVANTAGE
0-1,000 Total Hours	\$187.20	\$204.60	\$17.40 (9%)
1,001 Total Hours and Up	\$210.00	\$226.80	\$16.80 (7%)

Based on Pratt & Whitney Gold ESP Plan. CPI not included.

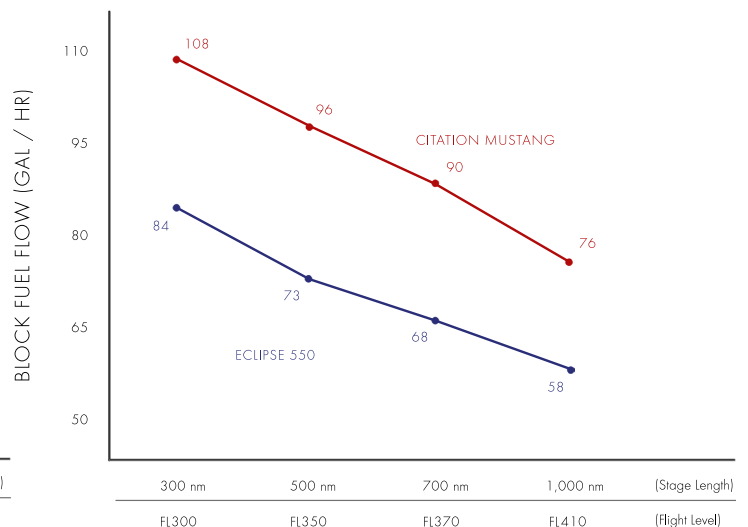
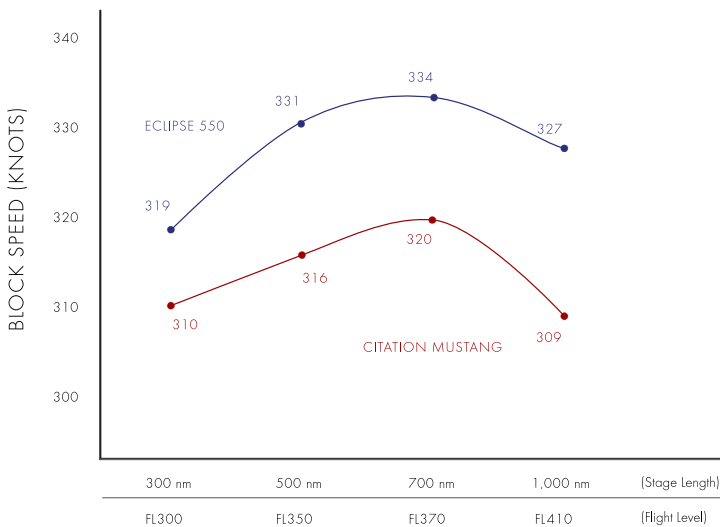
# OPERATING CHARACTERISTICS

STAGE LENGTH (Nautical Miles)	ALTITUDE (Feet)	BLOCK SPEED (Knots)		CRUISE SPEED (Knots)		ECLIPSE ADVANTAGE (Knots)	
		ECLIPSE	MUSTANG	ECLIPSE	MUSTANG	BLOCK	CRUISE
300	30,000	319	310	371	344	9	27
500	35,000	331	316	369	341	15	28
700	37,000	334	320	363	340	14	23
1,000	41,000	327	309	346	320	18	26

Block speeds are based on cruise at Max Continuous Thrust (MCT) for various stage lengths. Block speeds include climb, cruise, and descent. Cruise altitudes shown are typical altitudes for the given stage lengths.

STAGE LENGTH (Nautical Miles)	ALTITUDE (Feet)	BLOCK FUEL FLOW (US gal/hr)		ECLIPSE JET ADVANTAGE	
		ECLIPSE	MUSTANG	(Gal Adv)	(% Adv)
300	30,000	83.6	108.1	24.5	23%
500	38,000	73.4	95.5	22.1	23%
700	40,000	68.3	89.6	21.3	24%
1,000	41,000	57.7	76.4	18.7	24%

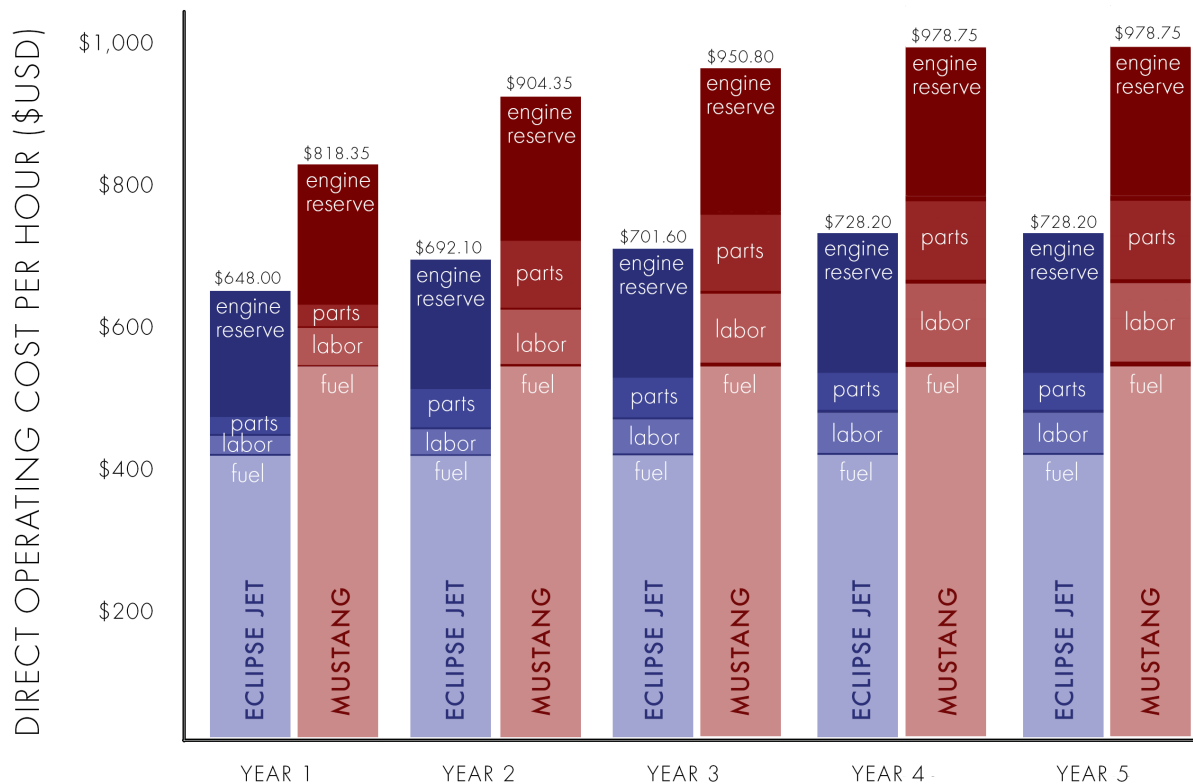
Block Fuel allows for taxi and takeoff (Block Fuel for the Eclipse Jet includes 40 lbs. for taxi and takeoff; the Mustang uses 60 lbs). Cruise altitudes shown are typical altitudes for the given stage length.



## DIRECT OPERATING COST

Aircraft	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang
Fuel	\$414.40	\$537.60	\$414.40	\$537.60	\$414.40	\$537.60	\$414.40	\$537.60	\$414.40	\$537.60
Labor	\$23.75	\$53.50	\$38.00	\$74.90	\$47.50	\$96.30	\$51.30	\$107.00	\$51.30	\$107.00
Parts	\$22.65	\$22.65	\$52.50	\$87.25	\$52.50	\$101.20	\$52.50	\$107.35	\$52.50	\$107.35
Eng. Reserves	\$187.20	\$204.60	\$187.20	\$204.60	\$187.20	\$215.70	\$210.00	\$226.80	\$210.00	\$226.80
Direct Cost / hr	\$648.00	\$818.35	\$692.10	\$904.35	\$701.60	\$950.80	\$728.20	\$978.75	\$728.20	\$978.75
\$ / nm	\$1.96	\$2.59	\$2.09	\$2.86	\$2.12	\$3.01	\$2.20	\$3.10	\$2.20	\$3.10

Fuel priced at national average as of January 2013 (\$5.60). Eclipse shop rate averages \$95 / hr. Mustang shop rate averages \$107 / hr. Dollars per flight hour for an average 500NM stage length and 400hrs of utilization. Doesn't estimate for CPI. Block speed used in calculating the \$ / nm is 331 kts for the Eclipse and 316 kts for the Mustang (published block speeds for each company).



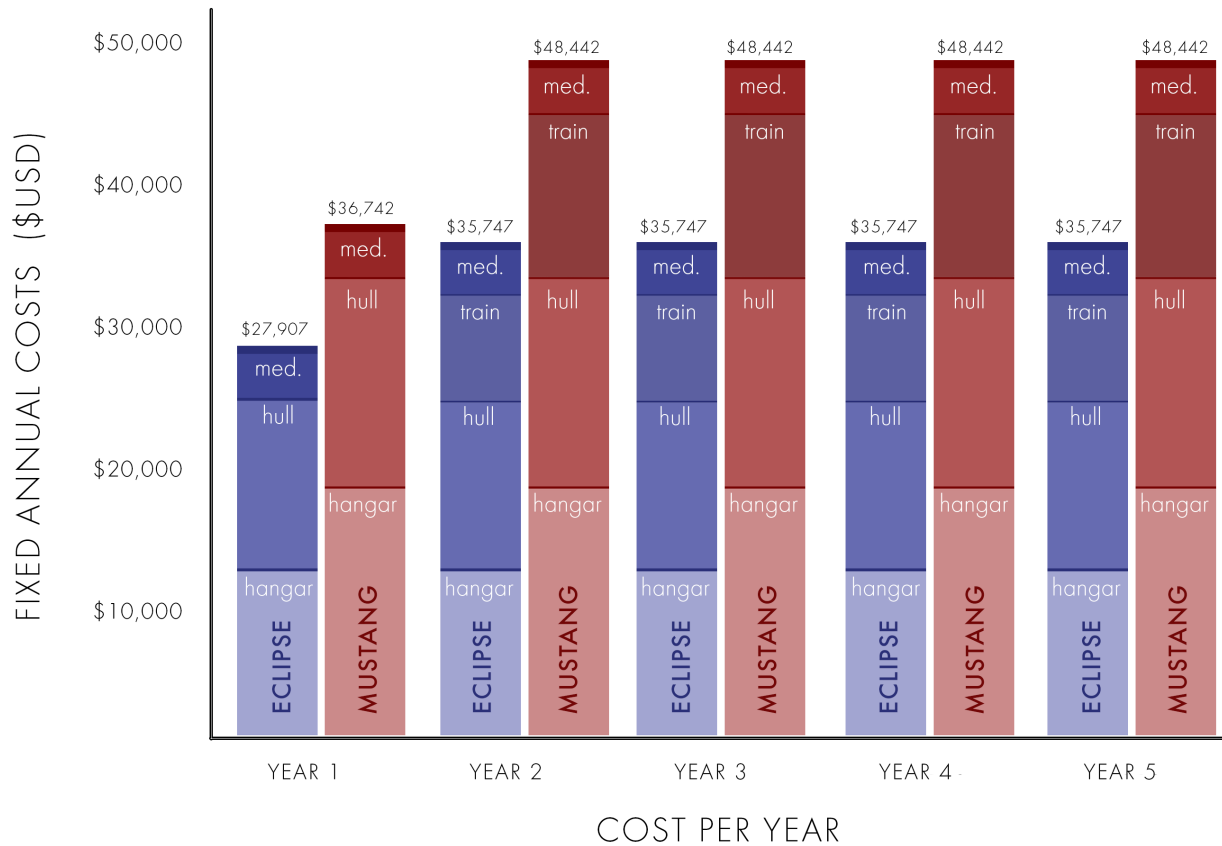
## COMPETITIVE ADVANTAGE

The Eclipse 550's lower DOC equates to an average savings of \$245 each flight hour! The Eclipse's total operating cost advantage per nautical mile (remember that the Eclipse block speed has been calculated at 331 kts vs. 316 kts, covering a greater distance in a given time) is a savings of 35%.

## FIXED ANNUAL COSTS

Aircraft	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang	Eclipse	Mustang
Hangar Rental	\$12,000	\$18,000	\$12,000	\$18,000	\$12,000	\$18,000	\$12,000	\$18,000	\$12,000	\$18,000
Hull Insurance	\$12,127	\$14,962	\$12,127	\$14,962	\$12,127	\$14,962	\$12,127	\$14,962	\$12,127	\$14,962
Liability/Medical	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
War Risk	\$780	\$780	\$780	\$780	\$780	\$780	\$780	\$780	\$780	\$780
Init/Recur Train	\$0	\$0	\$7,840	\$11,700	\$7,840	\$11,700	\$7,840	\$11,700	\$7,840	\$11,700
Fixed Cost / yr	\$27,907	\$36,742	\$35,747	\$48,442	\$35,747	\$48,442	\$35,747	\$48,442	\$35,747	\$48,442

Hangar rental for Eclipse = \$1,000 per month; Mustang = \$1,500 per month. Hull insurance is calculated as 0.45% of the total purchase price of aircraft (Eclipse 550 = \$2.695MM, Mustang = \$3.325MM). War Risk includes Hull and Liability. Insurance rates assume single owner-pilot in good physical condition with annual recurrent training. Liability rates are for \$5MM coverage. Rates and terms can vary significantly depending on pilot experience and the desired amount of coverage.



## COMPETITIVE ADVANTAGE

The Eclipse 550 retains its competitive advantage over the Mustang when comparing Fixed Annual Costs. The Eclipse 550 saves an average of \$11,923 over **each** of the first five years (25% savings).