Worksheet for Estimating Hourly Operating Costs and Reserves

Aircraft:_____

Operating Costs:

a) Fuel _____ GPH × $_____/Gallon = $_____ Fuel costs per hour

b) Oil _____ QPH × $_____/Quart = $_____ Oil costs per hour

Oil Changes:

c) Cost of an oil change $_____ ÷ hours (oil change interval) = $_____ oil change costs per hour

Routine Maintenance:

As a rule of thumb, for initially setting rates, the hourly cost for routine engine (filters, spark plugs, and accessories) and airframe (batteries, instruments, fires, brakes) maintenance can be roughly estimated as one half the hourly cost of fuel and oil. As a starting point for avionics maintenance, estimate 10% of the current replacement value of your avionics and divide by 500. Appropriate adjustments can later be made based upon actual operating experience.

d) Engine(s) & Airframe-

Fuel costs per hour (a above) $_____ ÷ 2 + Oil costs per hour (b above) $_____ ÷2= $ Routine maintenance-cost per hour airframe/engine

e) Avionics-

Current replacement value $_____ × .10 ÷ 500 = $_____ Routine maintenance avionics cost per hour

100 hour Inspections: *May be required if flight training is to be conducted in your aircraft*.

f) Yearly projected flight time_____ hours ÷ 100 × cost of a 100 hour inspection $_____ = $_____ yearly 100 hour -- inspection expense

g) Yearly 100 hour inspection expense (f above) $_____ ÷ yearly projected flight time _____ hours = $_____ per hour -- 100-hour inspections hourly cost

h) **Total Direct Operating Costs**: add the results of a, b, c, d, e and g above = $_____ per hour

Reserves (or charges against deprecations)

Overhauls:

Engine-You may choose to install a new or factory remanufactured (FRM) engine or a shop overhaul (OH). Use the manufacturer's recommended TBO adjusted to allow for the possibility of premature replacement.

i) Cost of engine NEW/FRM/OH $_____ ÷ Adj Mfr Rec TBO_____ hours = $_____ Engine reserve per hour

Airframe-such as propellers, alternators, vacuum pump, and other systems.

j) Cost of propeller overhaul $_____ ÷ Mfr Rec TBO _____ hours = $ _____ Propeller cost per hour

k) Cost of alternator overhaul $_____ ÷ Mfr Rec TBO _____ hours = $ _____ Alternator cost per hour

l) Cost of vacuum pump overhaul $_____ ÷ Mfr Rec TBO _____ hours = $ _____ Vacuum pump cost per hour

m) Cost of fuel pump overhaul $_____ ÷ Mfr Rec TBO _____ hours = $ _____ Fuel pump cost per hour

n) ***Total Reserve Fund Allocations***: add the results of i, j, k and l above = $_____ per hour

Fixed Costs

o) Yearly insurance costs per year $_____ ÷ projected flying hours per year = _____ hours = $_____ insurance cost per hour

p) Yearly hangar or tie down costs $_____ ÷ projected flying hours per year = _____ hours = $_____ hangar/tie down cost per hour

q) Annual Inspection Expense $_____ ÷ projected flying hours per year = _____ hours = $_____ annual inspection cost per hour

r) ***Total Hourly Expense from Fixed Costs*** -- add the results of o, p, and q above = $_____ per hour

TOTAL HOURLYOPERATING EXPENSE -- add the results of h, n, and r above = $_____ per hour