Wing Loading

Take-off	
H (f)	692
CL(max)	1.6
T(max) (lb)	3.5
W_TO (lb)	5.463445905
S (f^2)	6.384303599
W/S (lb/f^2)	0.855762233
SIGMA	0.9819042
T/W	0.640621333
TOP	0.850281282
S_TO (f)	81.98067041

Landing	
H (f)	692
CL(max)	1.6
T(max) (lb)	2.9258
W_L (lb)	5.1853784
W/S (lb/f^2)	0.8122074
S (f^2)	6.3843036
SIGMA	0.9819042
T/W	0.5642404
LP	0.5169849
S_TO (f)	461.00421

Cruise Start	
CD_0	0.015
A	7
H (f)	300
Cruise Mach	0.04
W (lb)	5.32
k	0.056841051
V (f/s)	44.1192
rho (lbm/f^3)	0.075874061
q (lbf/f^2)	2.293309777
W/S (lb/f^2)	0.833033188
S (f^2)	6.384303599

Cruise End	
CD_0	0.015
A	7
H (f)	300
Cruise Mach	0.04
W (lb)	5
k	0.0568411
V (f/s)	44.1192
rho (lbm/f^3)	0.0758741
q (lbf/f^2)	2.2933098
W/S_optimum	0.8330332
W/S_actual	0.8330332

Climb	
H (f)	1,000
Climb Mach	0.04
dH/dt (f/min)	1100
V (f/s)	44.024
G (rad)	0.416439518
Gamma (deg)	24.61000254
rho (lbm/f^3)	0.074474205
q (lbf/f^2)	2.241294924
T/W min	0.475
T/W min - G	0.05839917
W/S_+ (lb/f^2)	1.151366529
W/S_- (lb/f^2)	1.15136646

Acceleration	
H (f)	50
Cruise Mach	0.04
n	5
V (f/s)	44.1532
rho (lbm/f^3)	0.076374
q (lbf/f^2)	2.3119801
W/S (lb/f^2)	0.2375356

Turn - Inst.	
H (f)	300
Cruise Mach	0.04
CL_max	1.6
W/S (lb/f^2)	0.833033188
V (f/s)	44.1192
rho (lbm/f^3)	0.075874061
q (lbf/f^2)	2.293309777
psi_dot (rad/s)	3.130817496
psi_dot (deg/s)	179.3827805
n	4.404741246

Turn- Sustained	
H (f)	300
Cruise Mach	0.04
n	5
W/S (lb/f^2)	0.8330332
T/W_max	0.2919959
V (f/s)	44.1192
rho (lbm/f^3)	0.0758741
q (lbf/f^2)	2.2933098
psi_dot (rad/s)	2.4361973
psi_dot (deg/s)	139.58394

Ceiling	
W (lb)	5.32
S (f^2)	6.384303599
H (f)	900
Cruise Mach	0.04
W/S (lb/f^2)	0.833033188
V (f/s)	44.0376
rho (lbm/f^3)	0.074674184
q (lbf/f^2)	2.248701996
CL_required	0.370450682

Descent	
W (lb)	5
S (f^2)	6.3843036
H (f)	1,400
Cruise Mach	0.04
W/S (lb/f^2)	0.8330332
V (f/s)	43.9696
rho (lbm/f^3)	0.0736743
q (lbf/f^2)	2.2117452
dH/dt-min (f/min)	152.33024
Gamma (deg)	3.3101418