

```
>> Main
```

```
===PC9 CG2 @ 100kts @ 1000ft===
```

```
===DEBUG DATA with X0+0.1 & U0+0.1===
```

```
X0 =
```

```
51.3615  
0.1000  
4.3813  
0.1000  
0.1000  
0.1000  
0.9935  
0.0451  
0.0938  
0.0451  
0.1000  
0.1000  
-304.7000
```

```
U0 =
```

```
0.1929  
0.1077  
0.1000  
0.1000
```

```
G_body =
```

```
-1.7884  
0.9630  
9.5974
```

```
V =
```

```
51.5482
```

```
alpha =
```

```
0.0851
```

```
beta =
```

```
0.0019
```

```
alpha_d =
```

0

beta\_d =

0

rho =

1.1889

qbar =

1.5795e+03

alpha\_dhat =

0

beta\_dhat =

0

phat =

0.0098

qhat =

0.0016

rhat =

0.0098

CL =

0.8710

CD =

0.0579

Lift =

2.2412e+04

Drag =

1.4907e+03

F\_t =

2.7478e+03

F\_body =

1.0e+04 \*

0.0420

-2.2457

0

Fx =

3.1674e+03

Fz =

-2.2457e+04

Cy =

0.0260

Fy =

667.9218

C1 =

-0.0160

Cm =

-0.2329

Cn =

-0.0126

Mx =

-4.1672e+03

My =

-9.9012e+03

Mz =

-3.2822e+03

Forces =

1.0e+04 \*

0.3167

0.0668

-2.2457

Moments =

1.0e+03 \*

-4.1672

-9.9012

-3.2822

L\_be =

0.9783 0.0982 -0.1823

-0.0812 0.9919 0.0982

0.1905 -0.0812 0.9783

L\_eb =

0.9783 -0.0812 0.1905

0.0982 0.9919 -0.0812

-0.1823 0.0982 0.9783

skew\_rot\_mat =

0 -0.1000 0.1000

0.1000 0 -0.1000

-0.1000 0.1000 0

c0 =

55558141

c1 =

1.9754e-04

c2 =

3.6538e-06

c3 =

0.0346

c4 =

-0.8693

c5 =

1.5202e-04

c6 =

0.0309

c7 =

0.8983

c8 =

9.1184e-05

c9 =

-0.1371

body\_vel\_rates =

-0.6988

-3.4150

3.9630

pdot =

-0.8435

qdot =

-1.4962

rdot =

-0.3162

quat\_rates =

-0.0092

0.0521

0.0497

0.0472

earth\_velocities =

51.0749

4.7850

-5.0670

Xdot =

-0.6988

-3.4150

3.9630

-0.8435

-1.4962

-0.3162

-0.0092

0.0521

0.0497

0.0472

51.0749

4.7850

-5.0670

>>