

```
>> Main
```

```
===PC9 CG2 @ 180kts @ 1000ft===
```

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

```
X0 =
```

```
92.6837  
0.1000  
-1.1366  
0.1000  
0.1000  
0.1000  
0.9967  
0.0477  
0.0457  
0.0477  
0.1000  
0.1000  
-304.7000
```

```
U0 =
```

```
0.3413  
0.1370  
0.1000  
0.1000
```

```
G_body =
```

```
-0.8489  
0.9757  
9.7244
```

```
V =
```

```
92.6908
```

```
alpha =
```

```
-0.0123
```

```
beta =
```

```
0.0011
```

```
alpha_d =
```

0

beta_d =

0

rho =

1.1889

qbar =

5.1071e+03

alpha_dhat =

0

beta_dhat =

0

phat =

0.0055

qhat =

8.9114e-04

rhat =

0.0055

CL =

0.3136

CD =

0.0249

Lift =

2.6089e+04

Drag =

2.0730e+03

F_t =

2.7037e+03

F_body =

1.0e+04 *

-0.2393

-2.6062

0

Fx =

310.9789

Fz =

-2.6062e+04

Cy =

0.0255

Fy =

2.1205e+03

C1 =

-0.0148

Cm =

-0.1955

Cn =

-0.0119

Mx =

-1.2493e+04

My =

-2.6871e+04

Mz =

-1.0020e+04

Forces =

1.0e+04 *

0.0311

0.2121

-2.6062

Moments =

1.0e+04 *

-1.2493

-2.6871

-1.0020

L_be =

0.9913 0.0995 -0.0865

-0.0907 0.9909 0.0995

0.0956 -0.0907 0.9913

L_eb =

0.9913 -0.0907 0.0956

0.0995 0.9909 -0.0907

-0.0865 0.0995 0.9913

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 =

-0.5763

-7.3903

6.4951

pdot =

-2.5129

qdot =

-4.0760

rdot =

-0.9610

quat_rates =

-0.0071

0.0497

0.0498

0.0499

earth_velocities =

91.7570

9.4204

-9.1372

Xdot =

-0.5763

-7.3903

6.4951

-2.5129

-4.0760

-0.9610

-0.0071

0.0497

0.0498

0.0499

91.7570

9.4204

-9.1372

>>