				Change CG from case #1	Change Tail Angle From case #1
	Hand Calculation	**XFLR5**	**% Difference**	**XFLR5**	**XFLR5**
	Case #1	**Case #1**		**Case #2a**	**Case #2b**
Velocity (m/sec)	13.40	13.4	0	20	20
q	109.9805	109.9805	0	245.0000000000	245.0000000000
Re wing	321048.79	321048.79	0	479177.3049645390	479177.3049645390
Re tail	215561.33	215561.33	0	321733.3333333330	321733.3333333330
CL	0.4949	0.4949	1.1216E-14	0.2221725496	0.2221725496
Xac/c (empirical)	0.25	0.25	0	0.2500000000	0.2500000000
Xac	0.087955196	0.08956878	1.834552988	0.0895687802	0.0895687802
Vh	0.578010478	1.443285235	149.6988012	0.9456384323	1.1561750221
Xac/c	0.25	0.25	0	0.2500000000	0.2500000000
a0 (rad-1)	6.283185307	6.283185307	0	6.2831853072	6.2831853072
CL_alpha wing C_{L_α}	2.067484131	2.067484131	3.65155E-13	1.0054767944	1.0054767944
CL_alpha tail $C_{L_{\alpha_t}}$	3.344969336	3.344969336	3.31908E-13	2.6293871060	2.6293871060
Xn/c	0.806946537	0.327539669	59.40999143	0.2809485467	0.3208589791
Xn	0.290500753	0.117712182	59.47956059	0.1009681256	0.1153112556
Xcg	0.197413448	0.120000000	39.21386759	0.1440000000	0.1200000000
Xcg/c	0.548370689	0.333905630	39.10950445	0.4006867563	0.3339056302
AoA	0.13503269	0.13503269	0	0.1001529319	0.1001529319
CL wing	0.354955195	0.354955195	0	0.1357992101	0.1357992101
CL tail	0.574279738	0.574279738	0	0.3551237524	0.3551237524
L wing	33.49718418	33.49718418	0	28.5484413717	28.5484413717
L tail	13.16161366	13.16161366	0	18.1307496389	18.1307496389
a zero lift	-0.036651914	-0.036651914	0	-0.0366519143	-0.0366519143
a absolute	0.171684605	0.171684605	0	0.1350595169	0.1350595169
Static Margin	0.258575848	0.207539669	19.73741152	0.1369485467	0.2008589791
$C_{M_{ac}}$	-0.05	-0.05	0	-0.0500000000	-0.0500000000
C_{M_0}	0.033737852	0.118520086	251.2970676	0.0367934609	0.0561171249
C_{M_α}	-0.534601462	-0.017941016	-96.64403907	-0.0122134878	-0.0179822689
Provide C_L versus $C_{M_{cg}}$	Graph with 3 curves for Case #1, Case #2a, and Case #2b				