flight pahse C	Design		Modes		ζ	ωd(F1)	T2	τ
Iter 1	With Weight	long.	phugoid	(3)	0.009742			
			sp	(1)	0.617551			
		lateral	spiral	(4)			7.22664	
			roll	(1)				0.036039
			dutch	(2)	0.121115	0.728307		
Iter 2	With Weight	long.	phugoid	(3)				
			sp	(1)				
		lateral	spiral	(4)				
			roll	(1)				
			dutch	(2)				
Iter 3	With Weight	long.	phugoid	(3)				
			sp	(1)				
		lateral	spiral	(4)				
			roll	(1)				
			dutch	(2)				
Iter 4	With Weight	long.	phugoid	(3)				
			sp	(1)				
		lateral	spiral	(4)				
			roll	(1)				
			dutch	(2)				

Design		Modes		ζ	ωd(F1)	T2	τ
Without Weight	long.	hugoid	(3)	0.009491			
		sp	(1)	0.674			
	lateral	spiral	(4)			6.47386	
		roll	(1)				0.032238
		dutch	(2)	0.135635	0.727863		

NOTES

Make sure inertia extracted from solidworks/fusion is wrt the same axes corresponding to those in xflr5
assumed dutch maximum wd=.6

LVL 1 (Best)

LVL 2

LVL 3 (Least)

Dangerous

Too much stability

Damping ratio

Damped natural frequency () or F1

Time to double (T2) or (t2) (for unstable system)

Time constant ()