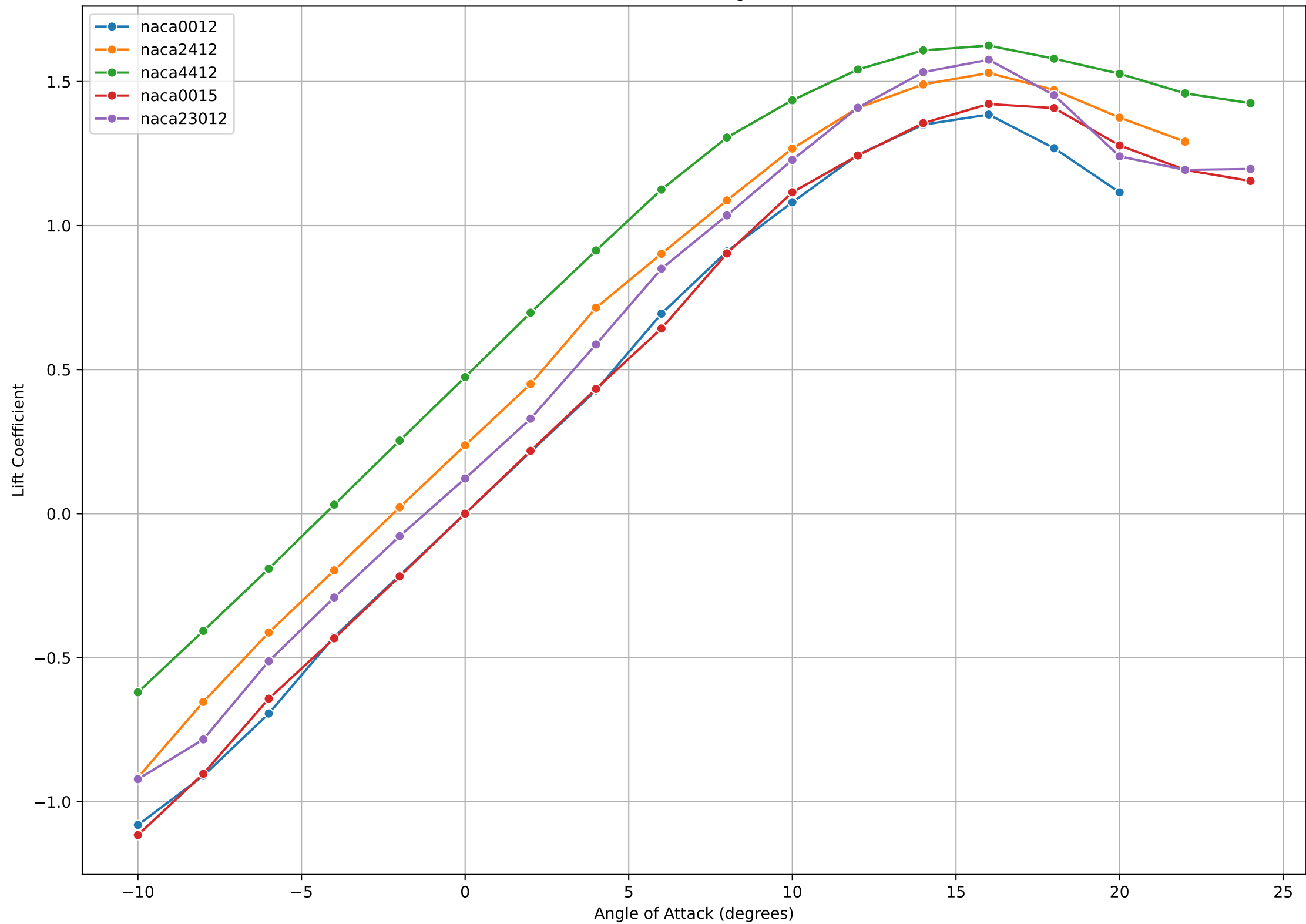


## Airfoil Performance Analysis

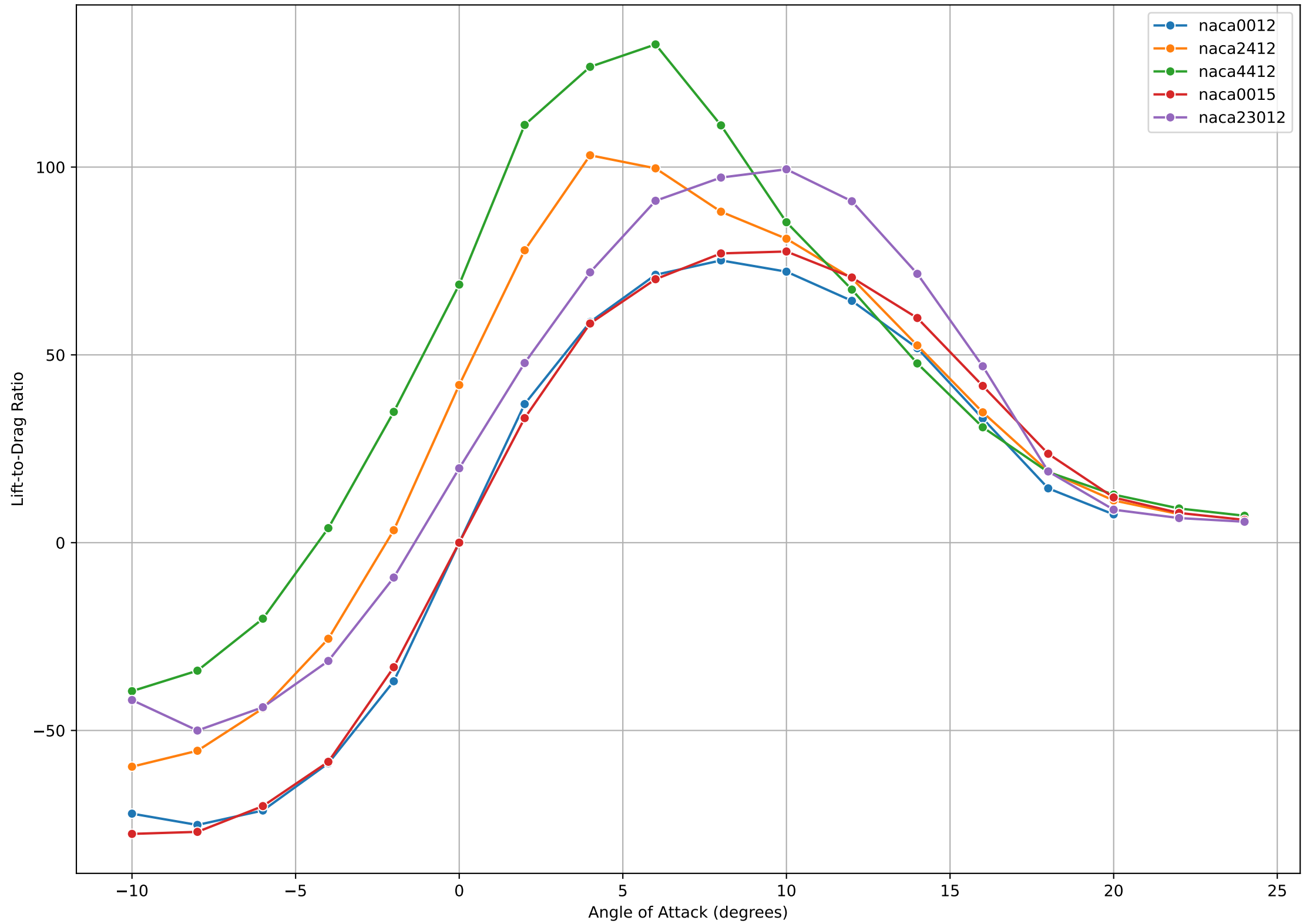
Reynolds Number:  $1.0 \times 10^6$

Airfoils Analyzed: naca0012, naca2412, naca4412, naca0015, naca23012

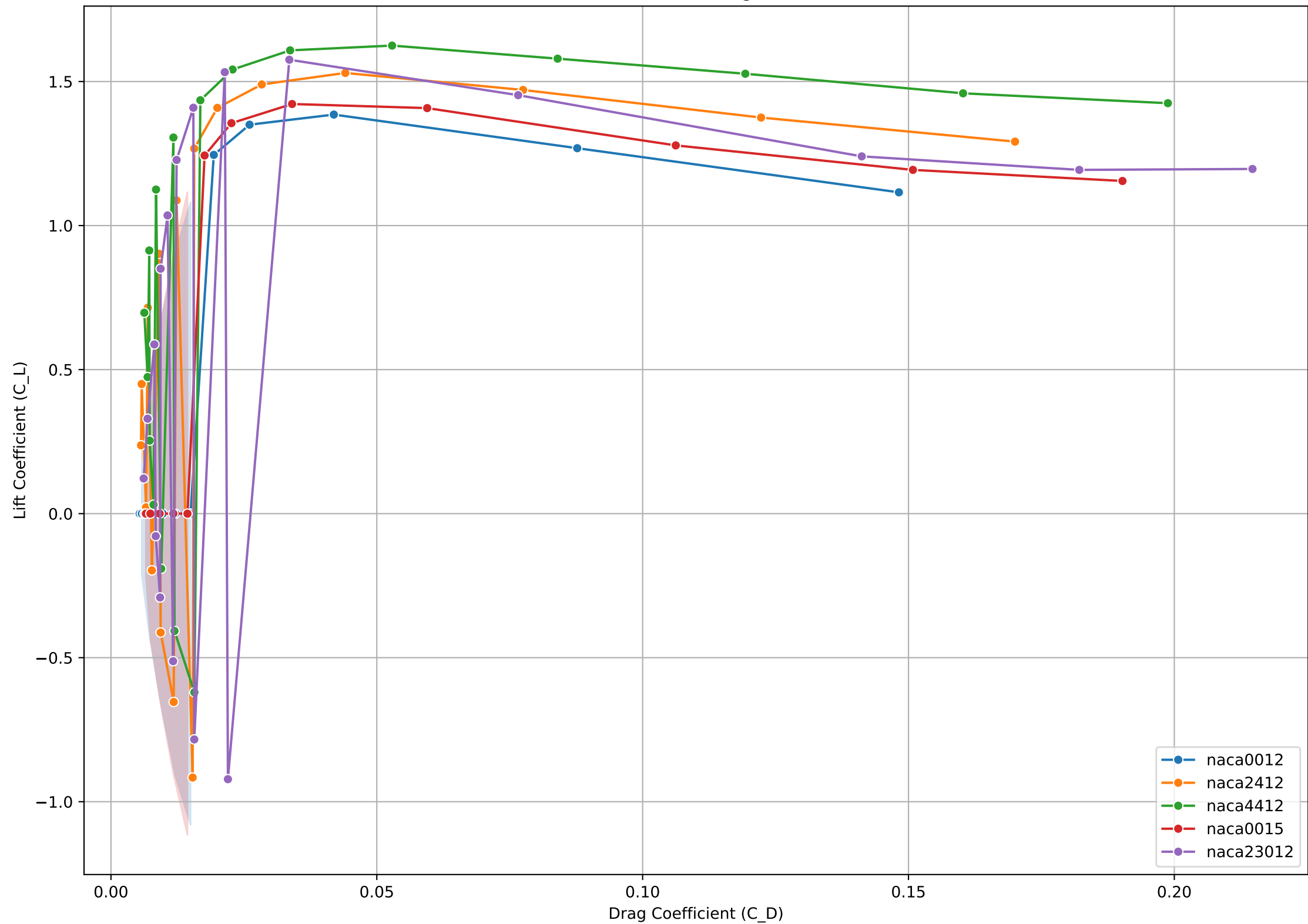
Lift Coefficient vs. Angle of Attack



Lift-to-Drag Ratio vs. Angle of Attack



Lift Coefficient vs. Drag Coefficient



# Best Airfoils for Each Angle of Attack

Angle of Attack (deg)	Best C_L Airfoil	Best C_L	Best C_D Airfoil	Best C_D	Best L/D Airfoil	Best L/D Ratio
-10	naca4412	-0.6203	naca0015	0.01439	naca4412	-39.534735500318675
-8	naca4412	-0.4073	naca0015	0.01173	naca4412	-34.0836820083682
-6	naca4412	-0.1913	naca0015	0.00916	naca4412	-20.243386243386244
-4	naca4412	0.031	naca0012	0.00728	naca4412	3.8701622971285894
-2	naca4412	0.2535	naca0012	0.00581	naca4412	34.82142857142857
0	naca4412	0.4741	naca0012	0.0054	naca4412	68.71014492753623
2	naca4412	0.6974	naca2412	0.00578	naca4412	111.22807017543859
4	naca4412	0.9135	naca2412	0.00693	naca4412	126.69902912621359
6	naca4412	1.125	naca4412	0.00848	naca4412	132.66509433962264
8	naca4412	1.3056	naca23012	0.01065	naca4412	111.11489361702128
10	naca4412	1.4351	naca23012	0.01235	naca23012	99.417004048583
12	naca4412	1.5417	naca23012	0.0155	naca23012	90.90322580645162
14	naca4412	1.6082	naca23012	0.02141	naca23012	71.57870154133583
16	naca4412	1.6248	naca23012	0.03355	naca23012	46.965722801788374
18	naca4412	1.5794	naca0015	0.05948	naca0015	23.6684599865501
20	naca4412	1.527	naca0015	0.10623	naca4412	12.798591903444807
22	naca4412	1.4591	naca0015	0.15083	naca4412	9.104011979784115
24	naca4412	1.4248	naca0015	0.19025	naca4412	7.167362543387495