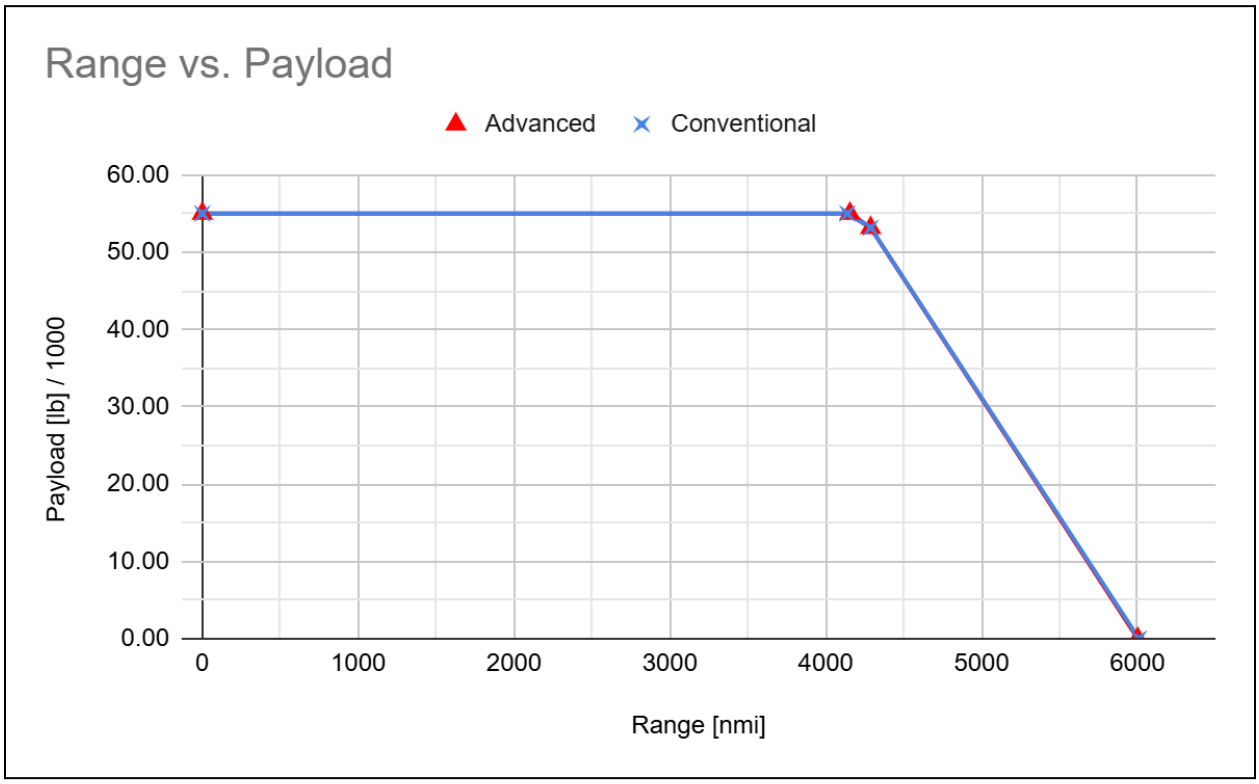
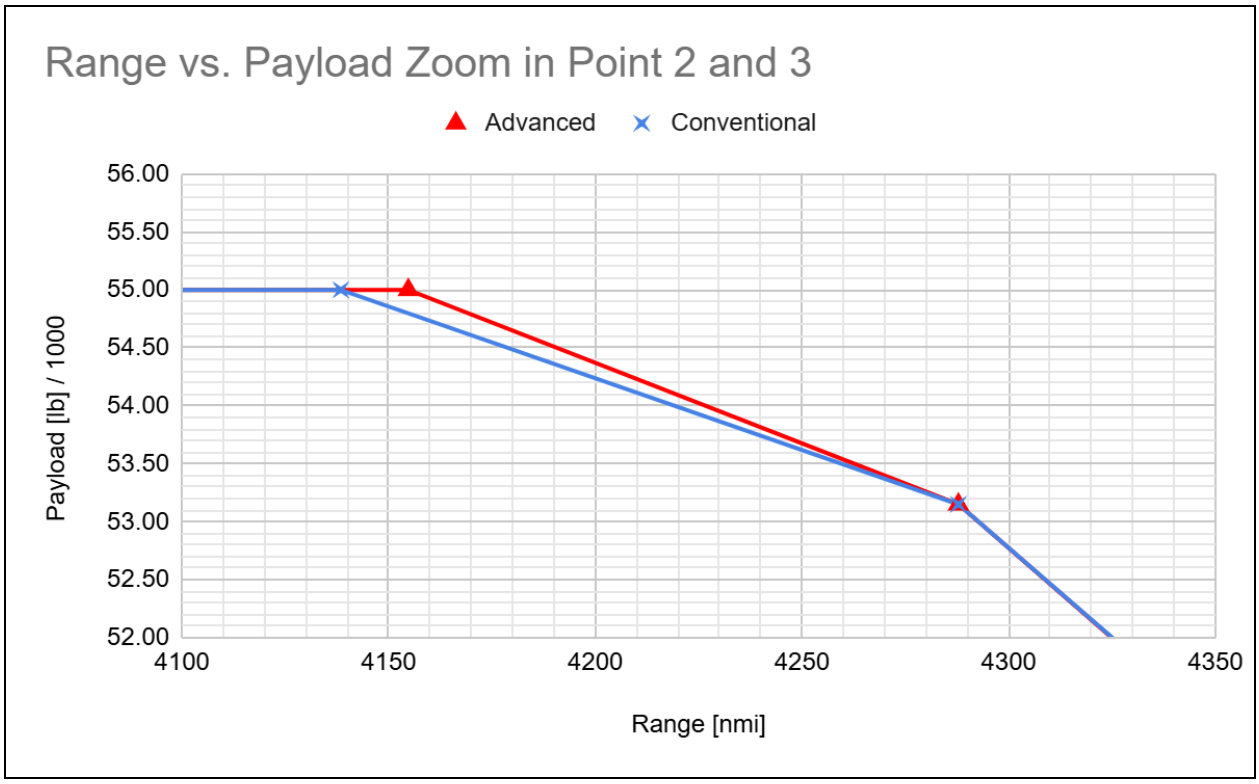
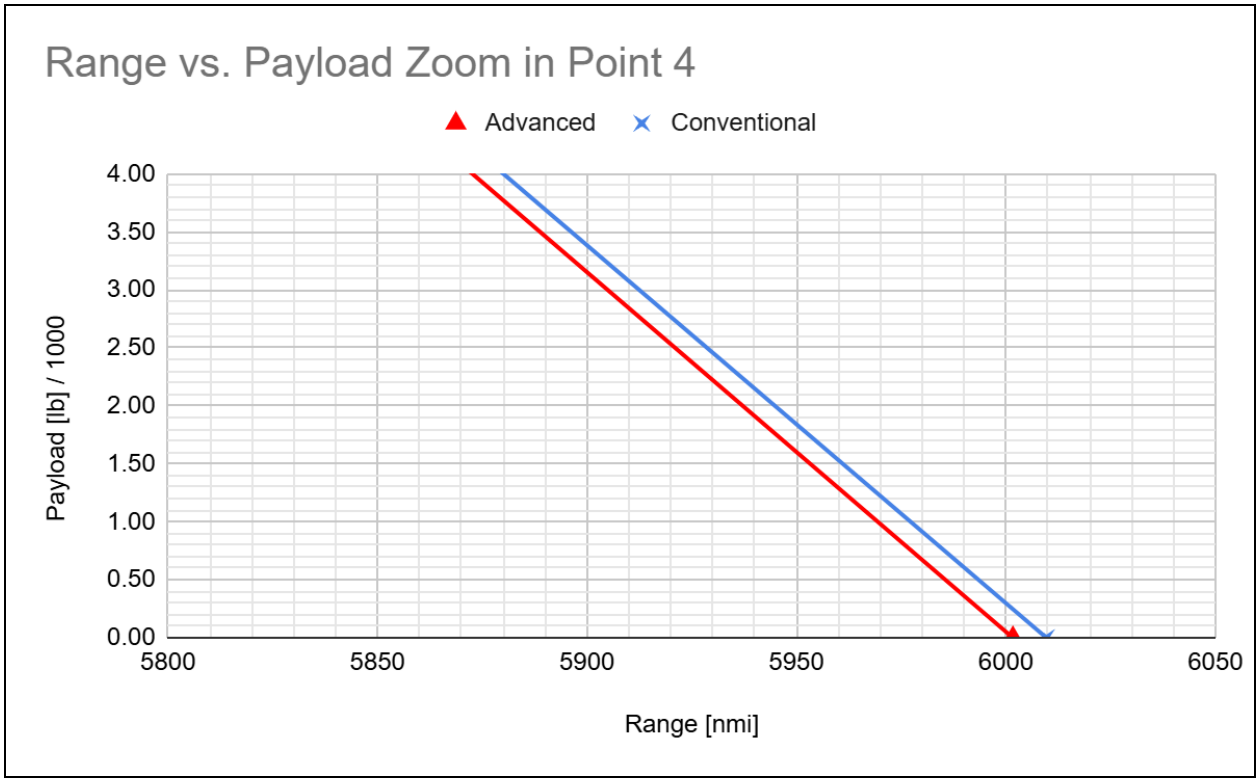
	Conventional	Advanced
WING		
Wingspan [ft]	123.02	122.40
MAC [ft]	16.57	16.48
Planform Area [ft^2]	1,891.67	1,872.76
Airfoil Type	Supercritical	Supercritical
Aspect Ratio (AR)	8	8
Swept Angle (°)	30	30
FUSELAGE		
Length [ft]	165.78	165.78
Diameter [ft]	14	14
Seats Abreast	6	6
MATERIAL		
Wing	Aluminum	Composite
Fuselage	Aluminum	Composite
Nacelle + Pylon	Aluminum	Composite
Tail	Aluminum	Composite
Fixed Equipment	Aluminum	Composite
WEIGHT		
Wing Weight [lb]	20,515.00	14,328.33
Fuselage [lb]	2,433.92	2,067.92
Tail Weight [lb]	4,035.30	1,972.87
Fixed Equipment Weight [lb]	37,805.00	36,997.09
Fuel Weight [lb]	70,106.07	69,974.62
ENGINES		
Flat Plate Drag Area [ft^2]	30.77	30.60
Engine Type	JT9D	JT9D

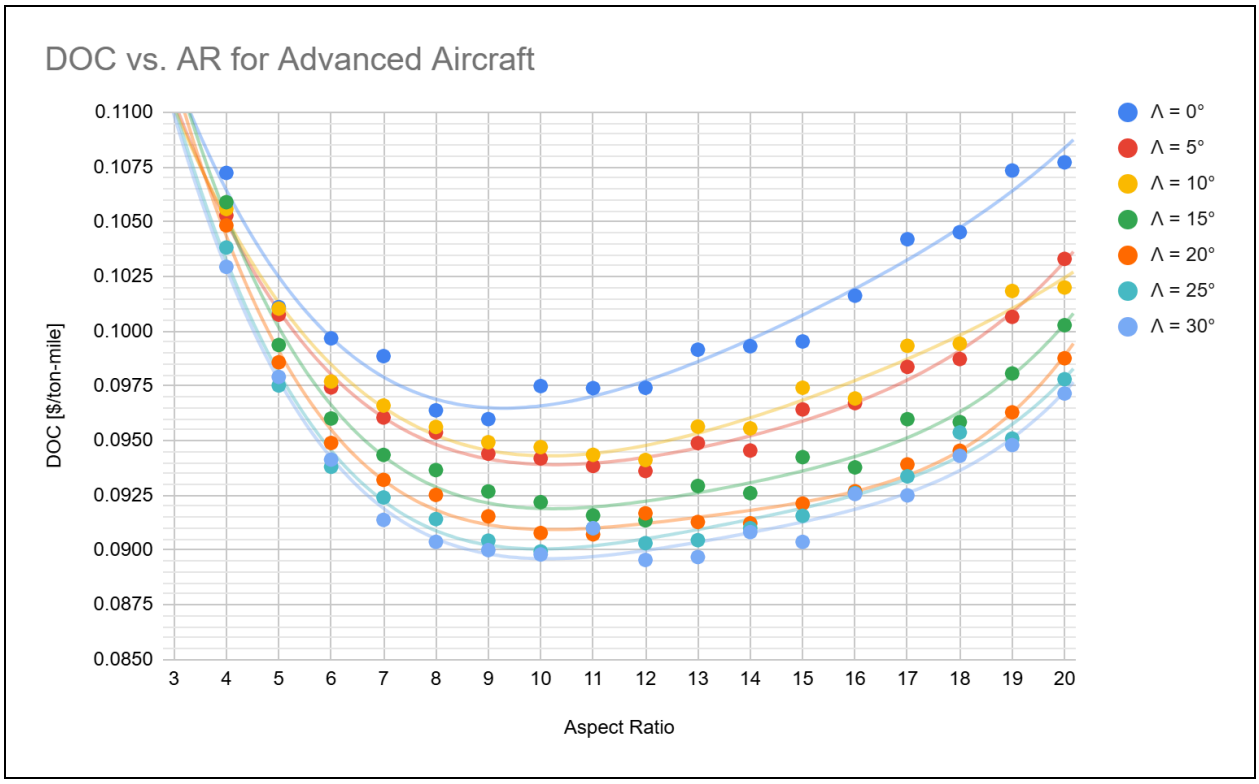
Number of Engines	2	2
Max Thrust per Engine [lb]	43,857.47	44,154.67
Takeoff Gross Weight [lb]	227,000.00	226,574.37
All-out Range NM	4,045.84	4,045.84
DOC [$/ton-mile]	0.09	0.09
SFC	0.62	0.56
Powerplant Weight [lb]	24,501.38	26,951.52

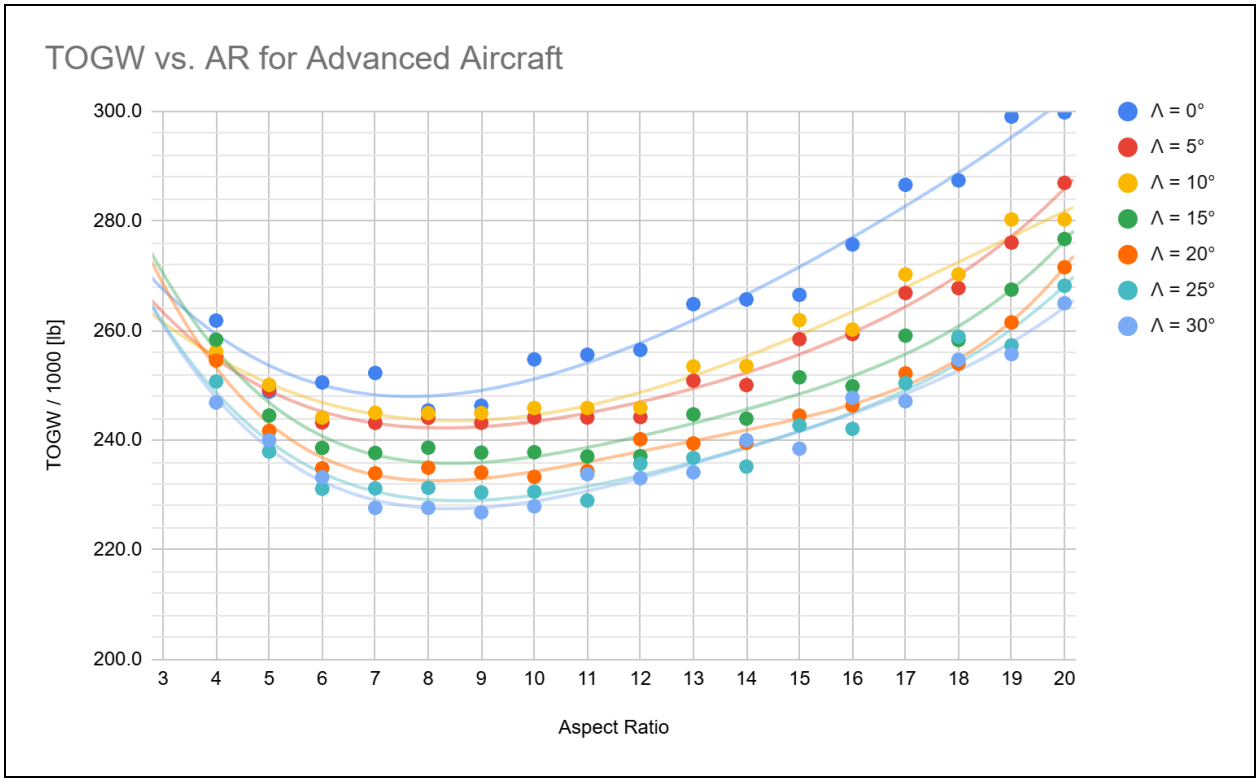



Range vs. Payload Zoom in Point 2 and 3
Advanced
Conventional
56.00
55.50
55.00
54.50
54.00
53.50
53.00
52.50
52.00
Payload [lb] / 1000
4100
4150
4200
4250
4300
4350
Range [nmi]

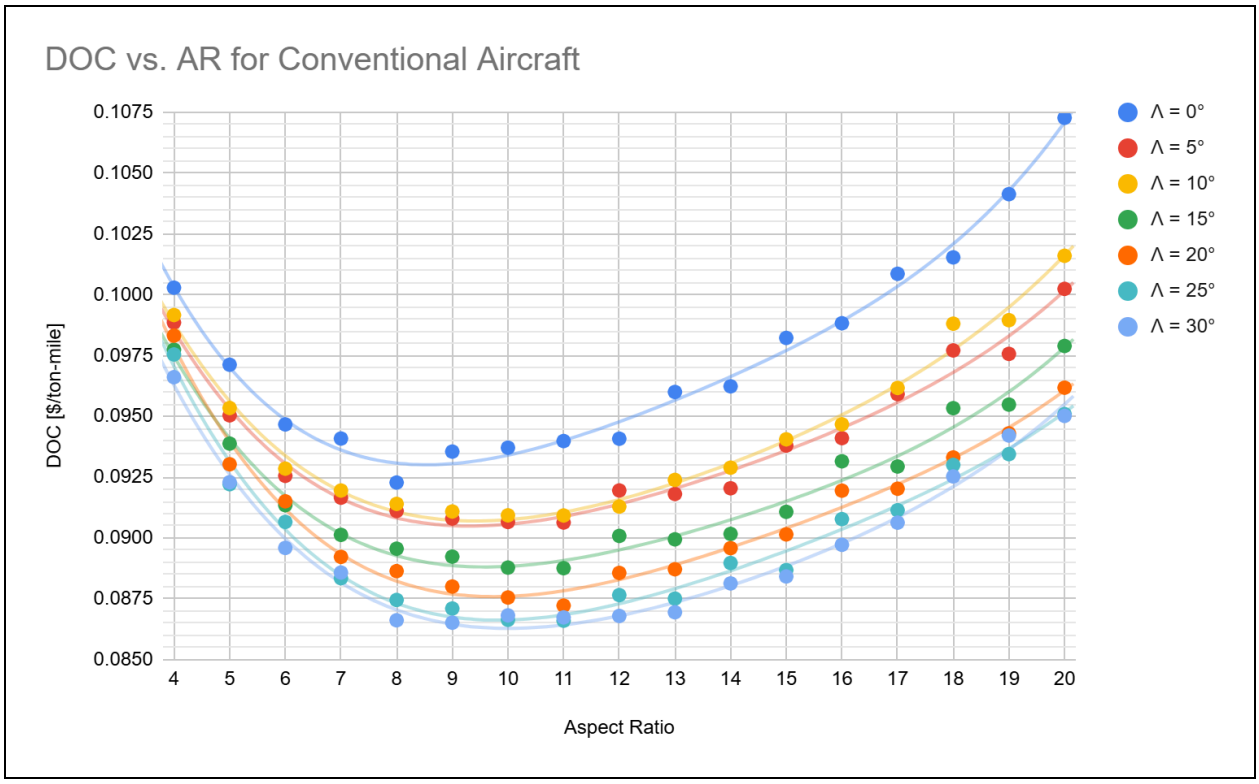

Range vs. Payload Zoom in Point 4
Advanced
Conventional
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
Payload [lb] / 1000
5800
5850
5900
5950
6000
6050
Range [nmi]

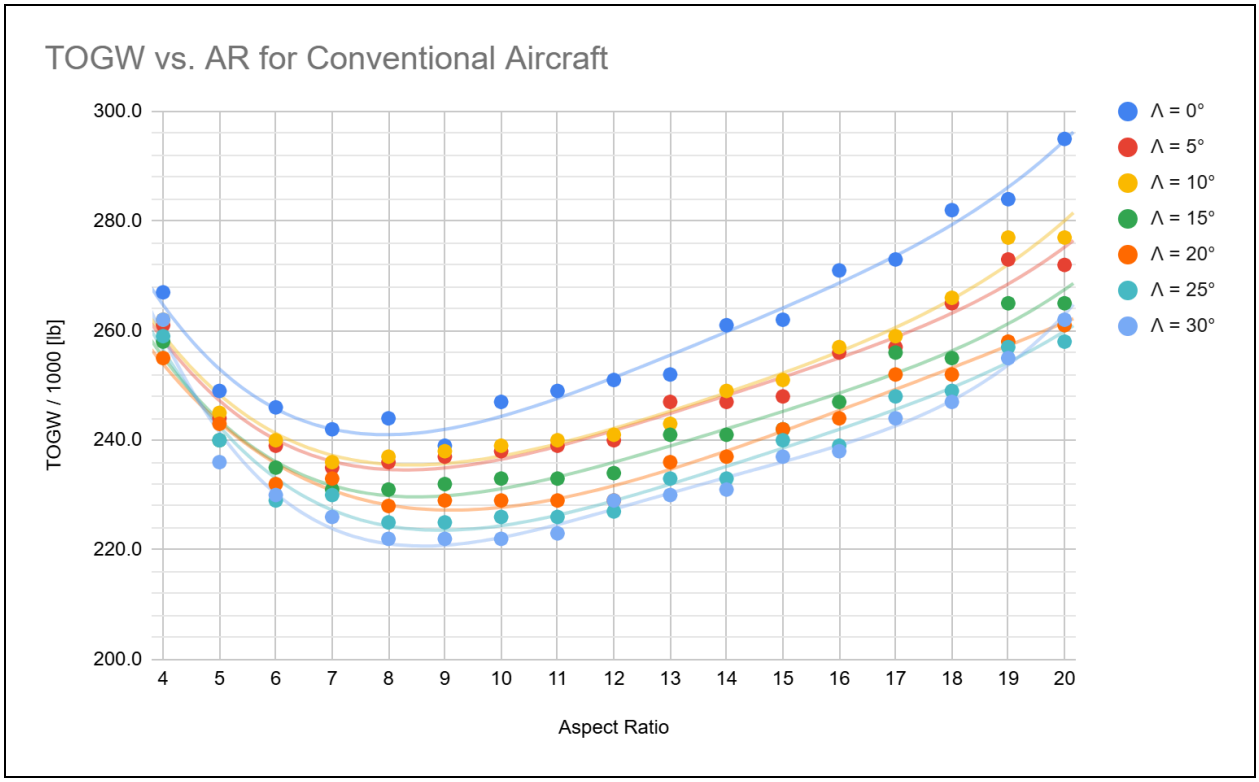
ADVANCED AIRCRAFT


DOC vs. AR for Advanced Aircraft
DOC [$/ton-mile]
0.1100
0.1075
0.1050
0.1025
0.1000
0.0975
0.0950
0.0925
0.0900
0.0875
0.0850
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Aspect Ratio
Λ = 0°
Λ = 5°
Λ = 10°
Λ = 15°
Λ = 20°
Λ = 25°
Λ = 30°


TOGW vs. AR for Advanced Aircraft
TOGW / 1000 [lb]
300.0
280.0
260.0
240.0
220.0
200.0
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Aspect Ratio
Λ = 0°
Λ = 5°
Λ = 10°
Λ = 15°
Λ = 20°
Λ = 25°
Λ = 30°

CONVENTIONAL AIRCRAFT


DOC vs. AR for Conventional Aircraft
DOC [$/ton-mile]
0.1075
0.1050
0.1025
0.1000
0.0975
0.0950
0.0925
0.0900
0.0875
0.0850
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Aspect Ratio
Λ = 0°
Λ = 5°
Λ = 10°
Λ = 15°
Λ = 20°
Λ = 25°
Λ = 30°


TOGW vs. AR for Conventional Aircraft
TOGW / 1000 [lb]
300.0
280.0
260.0
240.0
220.0
200.0
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Aspect Ratio
Λ = 0°
Λ = 5°
Λ = 10°
Λ = 15°
Λ = 20°
Λ = 25°
Λ = 30°