

No ply (dBZ)							
Mic	Angle	Fundamental		Harmonic 1		Harmonic 2	
		Test 1	Test 2	Test 1	Test 2	Test 1	Test 2
0		107.3	107.4	77.9	77.2	85.3	85.6
2	15.1	80.7	81.6	52.9	51.6	52.8	54
3	115.0	84.3	84.5	41.6	37.4	52.3	53.1
4	171.7	83.4	83.4	41	43.1	52.8	53.6
5	221.9	81	80.7	50.9	53.2	56.4	57
6	285.8	87	87.3	42.5	44.8	42	42.3
1	330.3	86.3	86.5	50.4	49.4	51.2	52.6
Average		84.4	84.6	49.0	49.2	52.8	53.6
Top open area m^2		-					
End panel above deck open area m^2		-					
End panel below deck open area m^2		-					

One third ply (dBZ)							
Mic	Angle	Fundamental		Harmonic 1		Harmonic 2	
		Test 1	Test 2	Test 1	Test 2	Test 1	Test 2
0		105.9	105.9	77.3	75.2	89.2	89
2	15.1	84.3	82.8	38.6	52.5	48.1	58.2
3	115.0	84.3	84.2	38.7	46.1	48.1	48.6
4	171.7	83.5	83.6	43.1	47.2	53.9	54.8
5	221.9	81.2	80.8	46.5	48.9	57.7	58.4
6	285.8	87.4	87.8	41.2	56.6	44.6	50.6
1	330.3	87	87.1	50.4	51.9	52.8	51.2
Average		85.1	85.0	45.3	52.0	52.8	55.2
Top open area m^2		-					
End panel above deck open area m^2		-					
End panel below deck open area m^2		-					

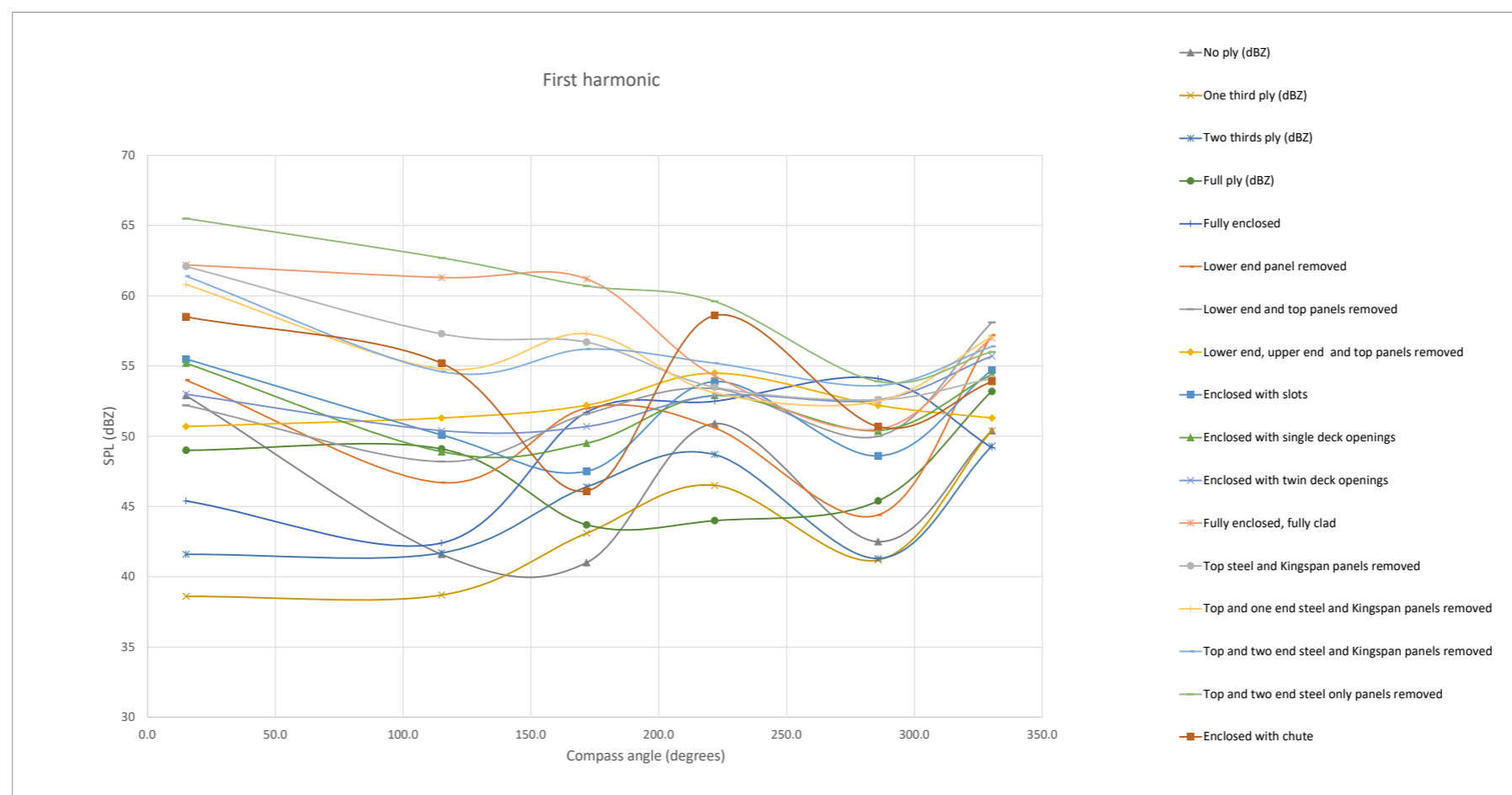
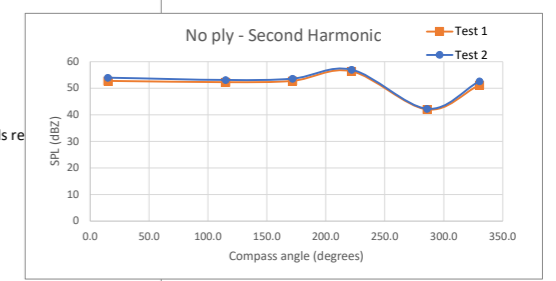
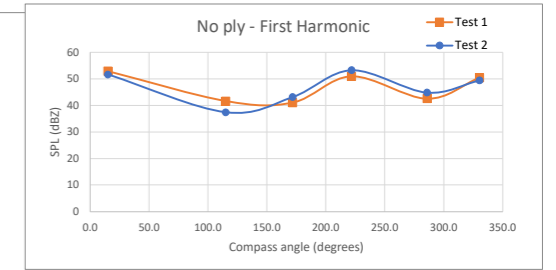
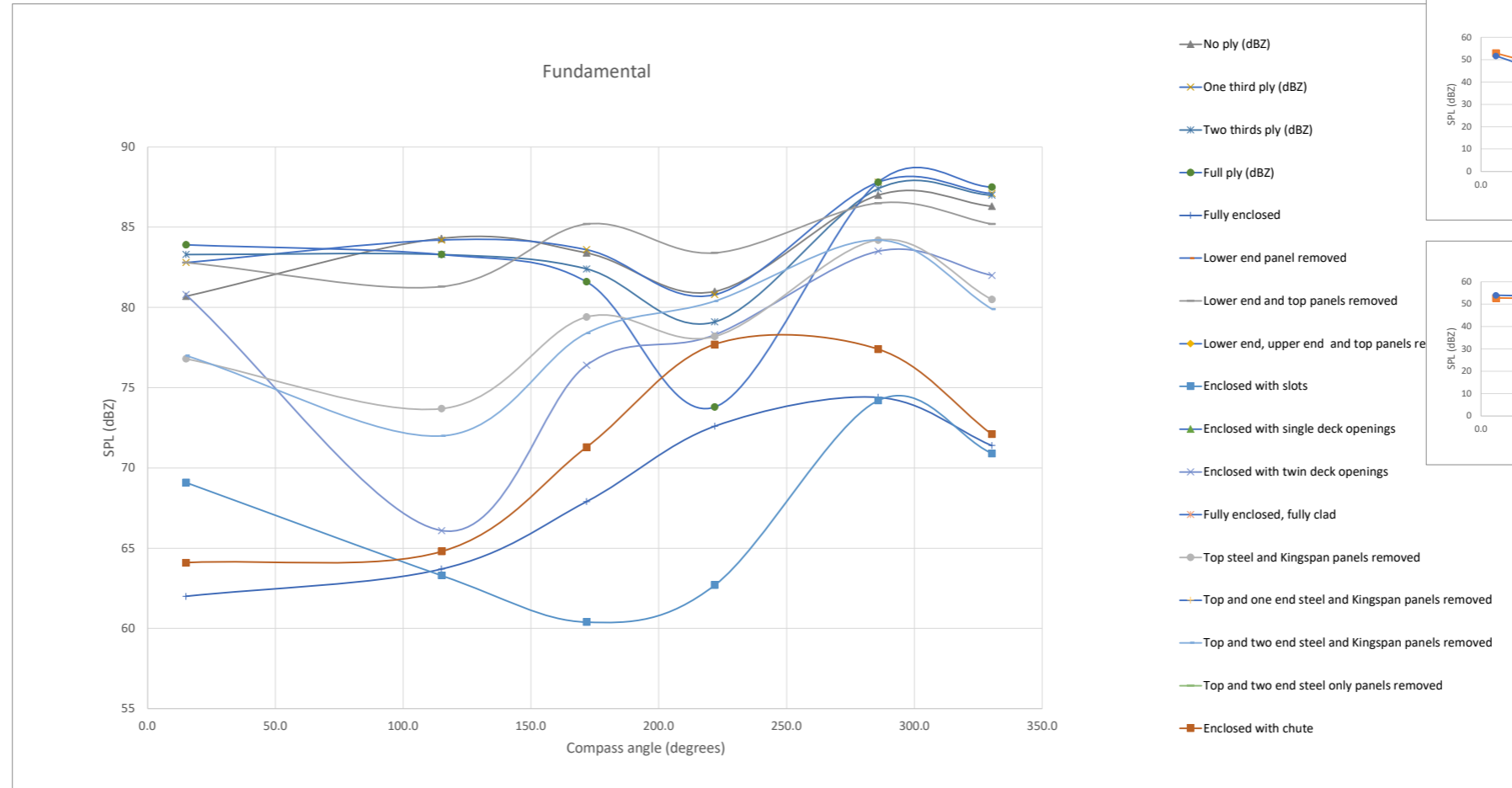
Two thirds ply (dBZ)							
Mic	Angle	Fundamental		Harmonic 1		Harmonic 2	
		Test 1	Test 2	Test 1	Test 2	Test 1	Test 2
0		115.2	115.1	76.3	77.6	97	97.4
2	15.1	83.3	82.8	41.6	54.5	53.4	62.2
3	115.0	83.3	83.4	41.7	47.8	53.4	38.7
4	171.7	82.4	82.4	46.4	45.4	58.9	60.5
5	221.9	79.1	78.6	48.7	50.3	60	59.9
6	285.8	87.4	87.3	41.3	53.3	50	54.6
1	330.3	87	87.1	49.3	50	57.1	56.2
Average		84.6	84.5	46.1	51.2	56.7	58.7
Top open area m^2		-					
End panel above deck open area m^2		-					
End panel below deck open area m^2		-					

Full ply (dBZ)							
Mic	Angle	Fundamental		Harmonic 1		Harmonic 2	
		Test 1	Test 2	Test 1	Test 2	Test 1	Test 2
0		122.2	121.9	80.7	82.1	90.5	90.2
2	15.1	82.8	83.9	49	52.6	53.7	66.7
3	115.0	82.8	83.3	49.1	51.1	53.7	66.5
4	171.7	81.8	81.6	43.7	42.4	56.5	61.5
5	221.9	72.8	73.8	44	44.2	59.2	57.2
6	285.8	88.6	87.8	45.4	46.4	43.8	62.3
1	330.3	88.1	87.5	53.2	49.7	49.7	61.1
Average		85.1	84.8	48.8	49.1	54.9	63.7
Top open area m^2		-					
End panel above deck open area m^2		-					
End panel below deck open area m^2		-					

Fully enclosed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		129.6	89.3	79.2
2	15.1	62	45.4	59.5
3	115.0	63.7	42.4	59
4	171.7	67.9	51.7	53.6
5	221.9	72.6	52.5	64.7
6	285.8	74.4	54.1	58.6
1	330.3	71.4	49.2	57.8
Average		70.6	50.8	60.1
Top open area m^2		0		
End panel above deck open area m^2		0		
End panel below deck open area m^2		0		

Lower end panel removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		128.3	87.4	80.8
2	15.1	65.5	54	64.3
3	115.0	80.4	46.7	59.2
4	171.7	81.5	52	61.9
5	221.9	86.1	50.6	61.2
6	285.8	80.2	44.4	60.2
1	330.3	75.7	57.2	61.2
Average		81.3	52.7	61.6
Top open area m^2		0		
End panel above deck open area m^2		0		
End panel below deck open area m^2		3.17		

Lower end and top panels removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		129.8	91.2	76.7
2	15.1	82.8	52.2	62.5
3	115.0	81.3	48.2	54.3
4	171.7	85.2	51.6	60.4



5	221.9	83.4	53.4	60.1
6	285.8	86.5	50	59.1
1	330.3	85.2	58.1	60.1
Average		84.4	53.5	60.0
Top open area m ²			2.28	
End panel above deck open area m ²			0	
End panel below deck open area m ²			3.17	

Lower end, upper end and top panels removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		131.3	88.4	108.9
2	15.1	89.4	50.7	55.3
3	115.0	83.6	51.3	61.4
4	171.7	87	52.2	56.8
5	221.9	93.4	54.5	48.3
6	285.8	88.2	52.2	56.3
1	330.3	88	51.3	52.1
Average		89.3	52.2	56.8
Top open area m ²			2.28	
End panel above deck open area m ²			3.17	
End panel below deck open area m ²			3.17	

Enclosed with slots				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		129.7	89.5	89.9
2	15.1	69.1	55.5	67.5
3	115.0	63.3	50.1	68.1
4	171.7	60.4	47.5	68.7
5	221.9	62.7	53.9	59.9
6	285.8	74.2	48.6	56
1	330.3	70.9	54.7	57.4
Average		69.4	52.7	65.5
Top open area m ²			0	
End panel above deck open area m ²			0.04	
End panel below deck open area m ²			0.04	

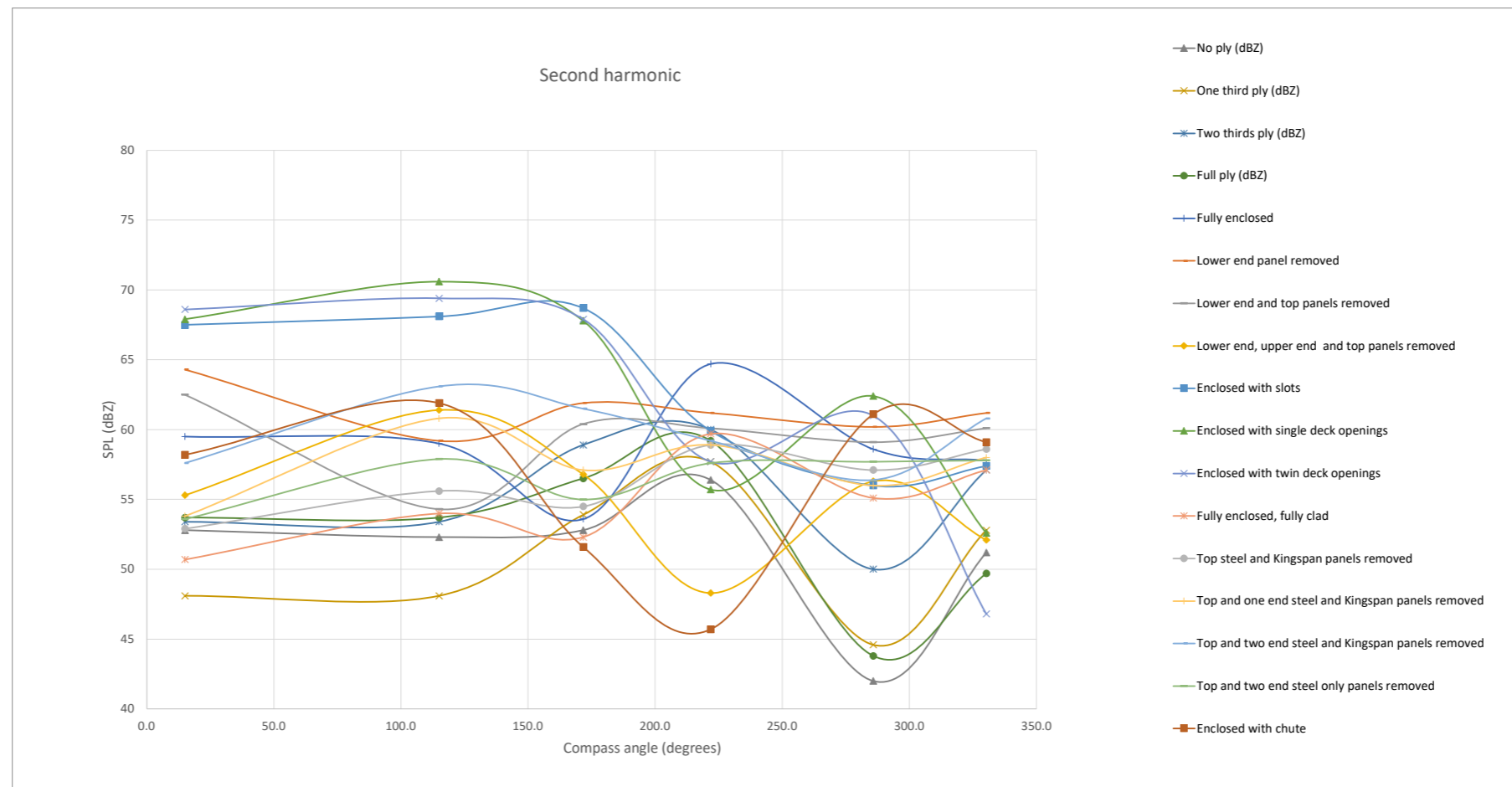
Enclosed with single deck openings				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		130.5	88.6	82
2	15.1	80.7	55.2	67.9
3	115.0	66.4	48.9	70.6
4	171.7	76.4	49.5	67.8
5	221.9	81.7	52.9	55.7
6	285.8	83.7	50.4	62.4
1	330.3	81.7	54.4	52.6
Average		80.6	52.5	66.4
Top open area m ²			0.76	
End panel above deck open area m ²			0.42	
End panel below deck open area m ²			0	

Enclosed with twin deck openings				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		130.4	89	78.3
2	15.1	80.8	53	68.6
3	115.0	66.1	50.4	69.4
4	171.7	76.4	50.7	67.9
5	221.9	78.3	52.9	57.7
6	285.8	83.5	52.6	61
1	330.3	82	55.7	46.8
Average		80.1	52.9	66.0
Top open area m ²			0.76	
End panel above deck open area m ²			0.42	
End panel below deck open area m ²			0.42	

Fully enclosed, fully clad				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		129.7	87.7	78.5
2	15.1	61.7	62.2	50.7
3	115.0	70.7	61.3	54
4	171.7	73.2	61.2	52.3
5	221.9	76.4	54.3	59.7
6	285.8	79.9	50.5	55.1
1	330.3	75.3	57	57.1
Average		75.4	59.4	55.9
Top open area m ²			0	
End panel above deck open area m ²			0	
End panel below deck open area m ²			0	

Top steel and Kingspan panels removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		129.9	90.4	85.2
2	15.1	76.8	62.1	52.9
3	115.0	73.7	57.3	55.6
4	171.7	79.4	56.7	54.5
5	221.9	78.2	53.5	58.9
6	285.8	84.2	52.6	57.1
1	330.3	80.5	54.1	58.6
Average		80.0	57.4	56.8
Top open area m ²			2.28	
End panel above deck open area m ²			0	
End panel below deck open area m ²			0	

Top and one end steel and Kingspan panels removed



Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		130.4	90.7	83
2	15.1	77.6	60.8	53.8
3	115.0	66.9	54.8	60.8
4	171.7	75.7	57.3	57.1
5	221.9	81.2	53.1	58.9
6	285.8	84.3	52.5	56
1	330.3	80.4	57.1	58
Average		80.1	56.9	58.0

Top open area m^2	2.28
End panel above deck open area m^2	0.42
End panel below deck open area m^2	0

Top and two end steel and Kingspan panels removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		130.1	91.3	85.1
2	15.1	77	61.4	57.6
3	115.0	72	54.6	63.1
4	171.7	78.4	56.2	61.5
5	221.9	80.4	55.2	59.2
6	285.8	84.2	53.6	56.4
1	330.3	79.9	56.4	60.8
Average		80.0	57.1	60.3

Top open area m^2	2.28
End panel above deck open area m^2	0.42
End panel below deck open area m^2	0.42

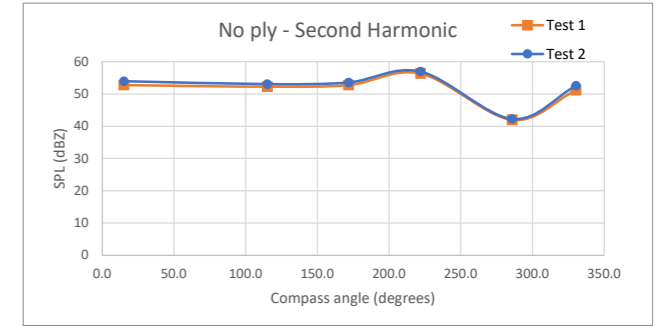
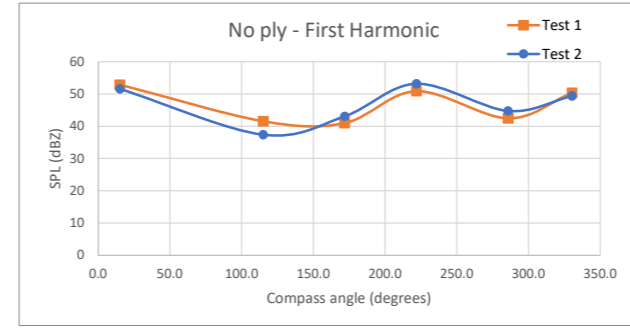
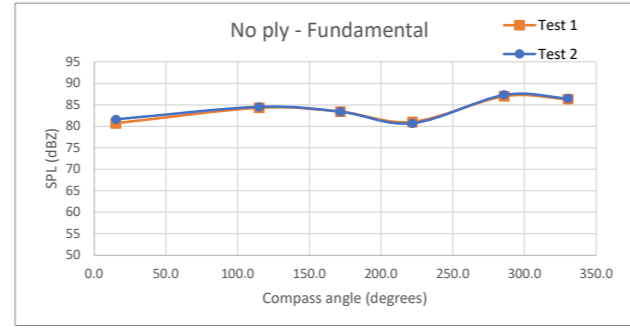
Top and two end steel only panels removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		129.6	93.8	77.6
2	15.1	61.7	65.5	53.6
3	115.0	70.4	62.7	57.9
4	171.7	73.1	60.7	55
5	221.9	76.4	59.6	57.6
6	285.8	80.3	53.9	57.7
1	330.3	75.6	56	57.8
Average		75.6	61.3	56.9

Top open area m^2	2.28
End panel above deck open area m^2	0.42
End panel below deck open area m^2	0.42

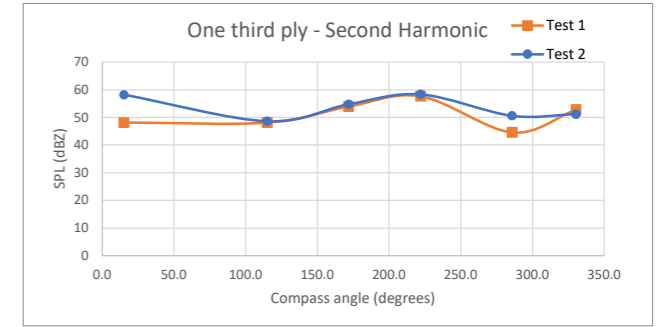
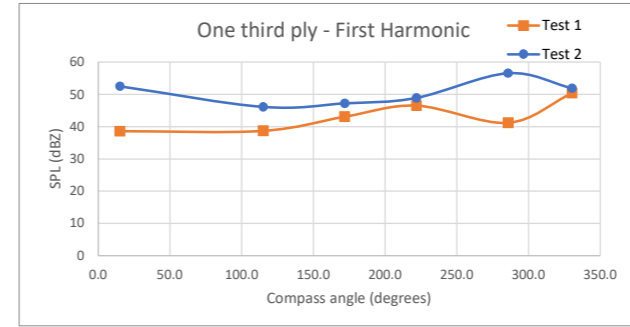
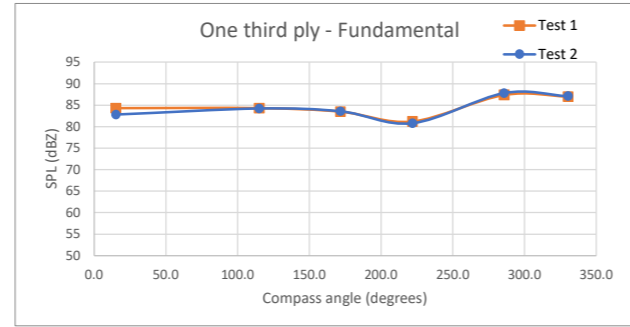
Enclosed with chute				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0				
2	15.1	64.1	58.5	58.2
3	115.0	64.8	55.2	61.9
4	171.7	71.3	46.1	51.6
5	221.9	77.7	58.6	45.7
6	285.8	77.4	50.7	61.1
1	330.3	72.1	53.9	59.1
Average		74.0	55.6	58.7

Top open area m^2	0.76
Chute discharge area m^2	0.42
End panel below deck open area m^2	0

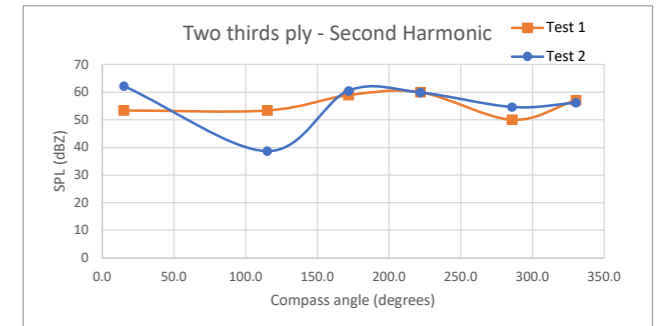
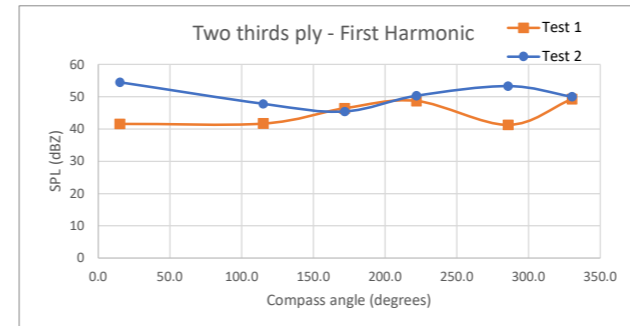
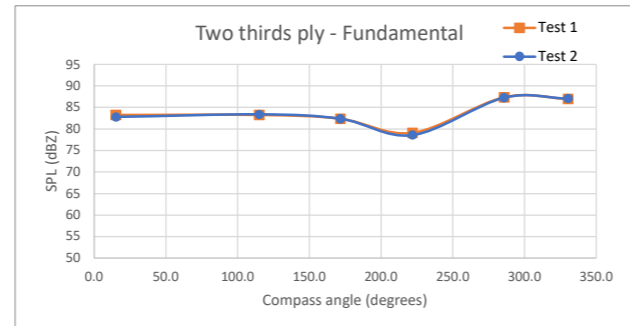
No ply (dBZ)							
Mic	Angle	Fundamental		Harmonic 1		Harmonic 2	
		Test 1	Test 2	Test 1	Test 2	Test 1	Test 2
0		107.3	107.4	77.9	77.2	85.3	85.6
2	15.1	80.7	81.6	52.9	51.6	52.8	54
3	115.0	84.3	84.5	41.6	37.4	52.3	53.1
4	171.7	83.4	83.4	41	43.1	52.8	53.6
5	221.9	81	80.7	50.9	53.2	56.4	57
6	285.8	87	87.3	42.5	44.8	42	42.3
1	330.3	86.3	86.5	50.4	49.4	51.2	52.6
Average		84.4	84.6	49.0	49.2	52.8	53.6
Top open area m ²		-					
End panel above deck open area m ²		-					
End panel below deck open area m ²		-					



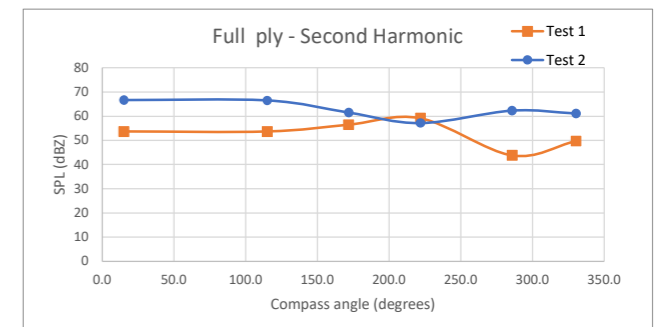
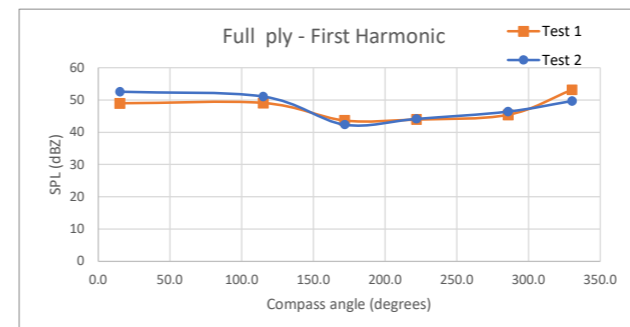
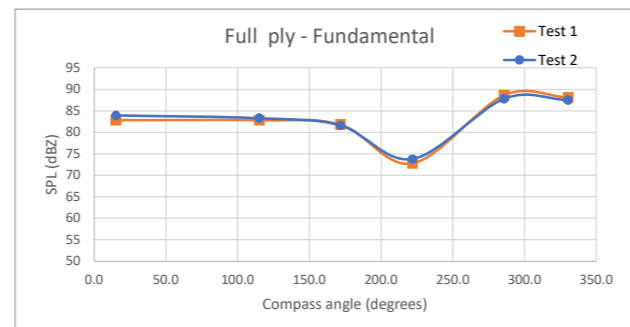
One third ply (dBZ)							
Mic	Angle	Fundamental		Harmonic 1		Harmonic 2	
		Test 1	Test 2	Test 1	Test 2	Test 1	Test 2
0		105.9	105.9	77.3	75.2	89.2	89
2	15.1	84.3	82.8	38.6	52.5	48.1	58.2
3	115.0	84.3	84.2	38.7	46.1	48.1	48.6
4	171.7	83.5	83.6	43.1	47.2	53.9	54.8
5	221.9	81.2	80.8	46.5	48.9	57.7	58.4
6	285.8	87.4	87.8	41.2	56.6	44.6	50.6
1	330.3	87	87.1	50.4	51.9	52.8	51.2
Average		85.1	85.0	45.3	52.0	52.9	55.2
Top open area m ²		-					
End panel above deck open area m ²		-					
End panel below deck open area m ²		-					



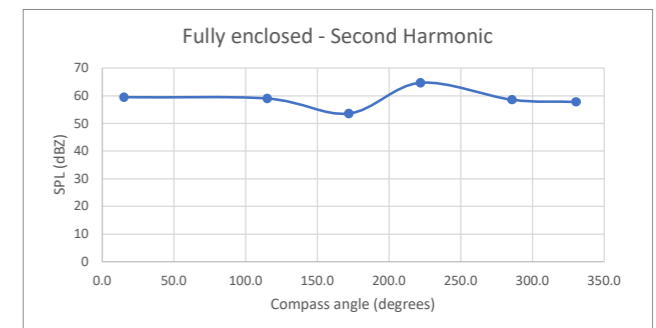
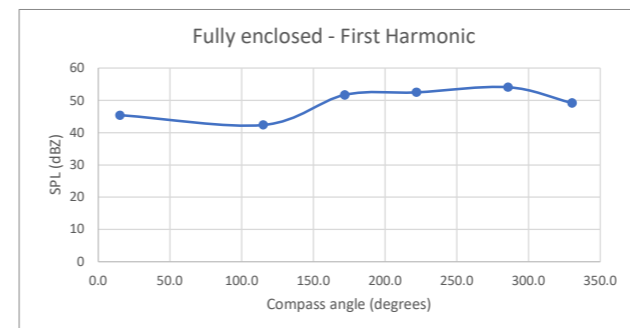
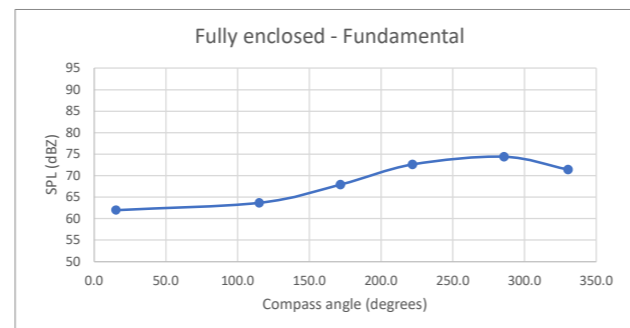
Two thirds ply (dBZ)							
Mic	Angle	Fundamental		Harmonic 1		Harmonic 2	
		Test 1	Test 2	Test 1	Test 2	Test 1	Test 2
0		115.2	115.1	76.3	77.6	97	97.4
2	15.1	83.3	82.8	41.6	54.5	53.4	62.2
3	115.0	83.3	83.4	41.7	47.8	53.4	38.7
4	171.7	82.4	82.4	46.4	45.4	58.9	60.5
5	221.9	79.1	78.6	48.7	50.3	60	59.9
6	285.8	87.4	87.3	41.3	53.3	50	54.6
1	330.3	87	87.1	49.3	50	57.1	56.2
Average		84.6	84.5	46.1	51.2	56.7	58.7
Top open area m ²		-					
End panel above deck open area m ²		-					
End panel below deck open area m ²		-					



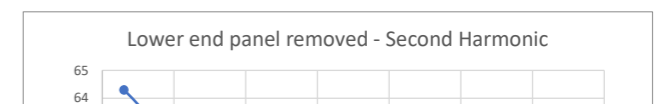
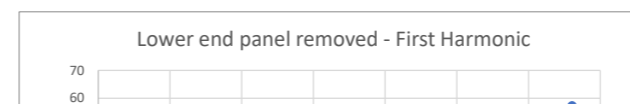
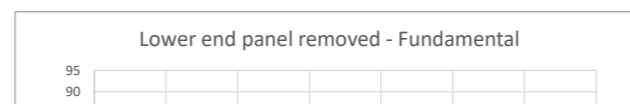
Full ply (dBZ)							
Mic	Angle	Fundamental		Harmonic 1		Harmonic 2	
		Test 1	Test 2	Test 1	Test 2	Test 1	Test 2
0		122.2	121.9	80.7	82.1	90.5	90.2
2	15.1	82.8	83.9	49	52.6	53.7	66.7
3	115.0	82.8	83.3	49.1	51.1	53.7	66.5
4	171.7	81.8	81.6	43.7	42.4	56.5	61.5
5	221.9	72.8	73.8	44	44.2	59.2	57.2
6	285.8	88.6	87.8	45.4	46.4	43.8	62.3
1	330.3	88.1	87.5	53.2	49.7	49.7	61.1
Average		85.1	84.8	48.8	49.1	54.9	63.7
Top open area m ²		-					
End panel above deck open area m ²		-					
End panel below deck open area m ²		-					



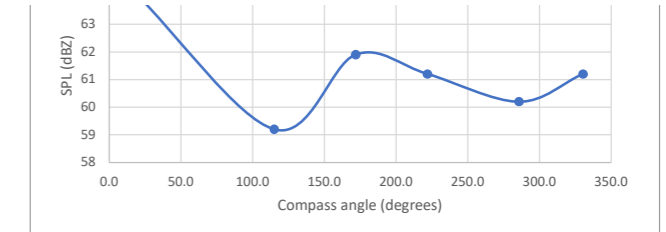
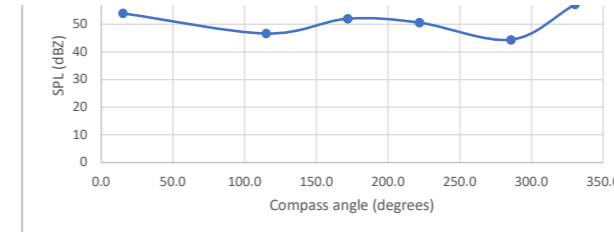
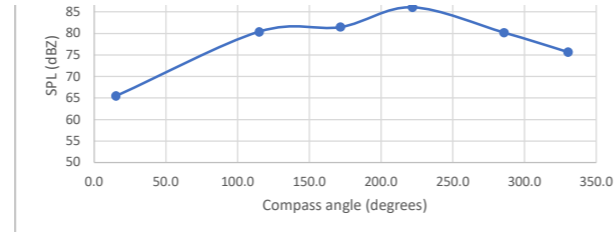
Fully enclosed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		129.6	89.3	79.2
2	15.1	62	45.4	59.5
3	115.0	63.7	42.4	59
4	171.7	67.9	51.7	53.6
5	221.9	72.6	52.5	64.7
6	285.8	74.4	54.1	58.6
1	330.3	71.4	49.2	57.8
Average		70.6	50.8	60.1
Top open area m ²		0		
End panel above deck open area m ²		0		
End panel below deck open area m ²		0		



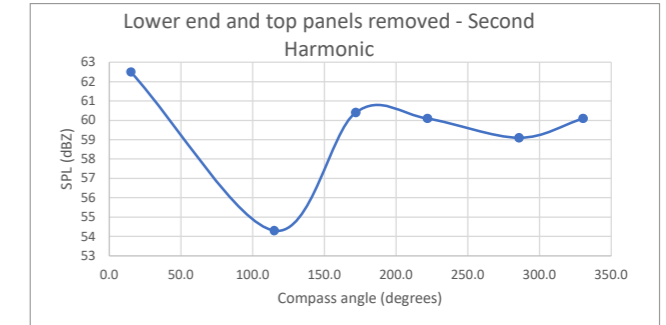
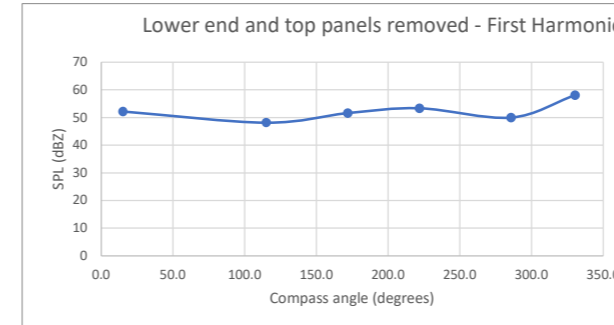
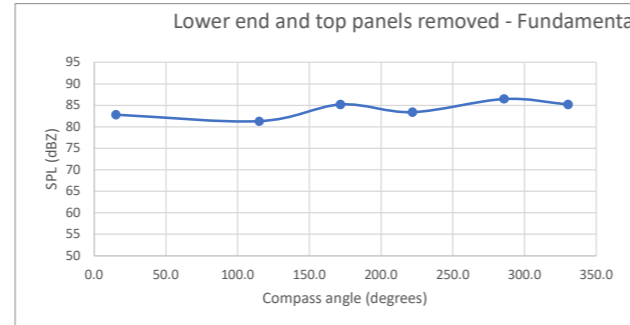
Lower end panel removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		128.3	87.4	80.8



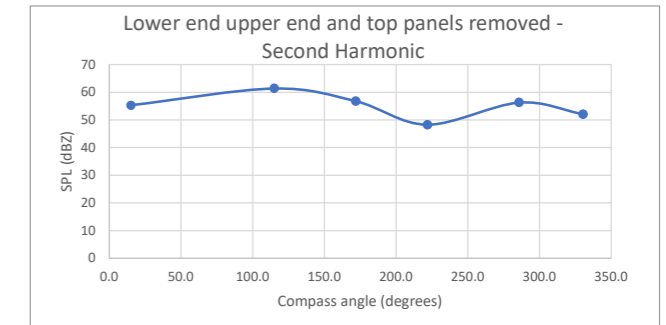
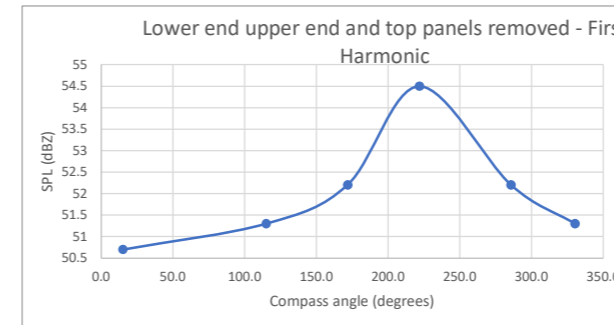
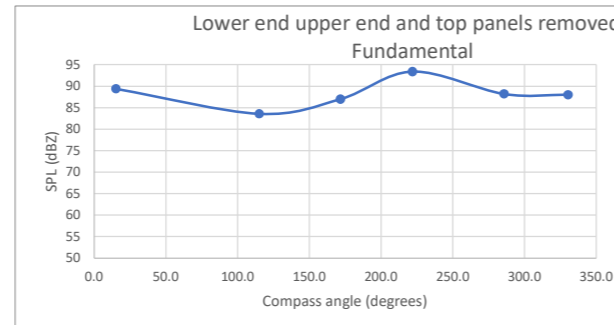
2	15.1	65.5	54	64.3
3	115.0	80.4	46.7	59.2
4	171.7	81.5	52	61.9
5	221.9	86.1	50.6	61.2
6	285.8	80.2	44.4	60.2
1	330.3	75.7	57.2	61.2
Average		81.3	52.7	61.6
Top open area m ²	0			
End panel above deck open area m ²	0			
End panel below deck open area m ²	3.17			



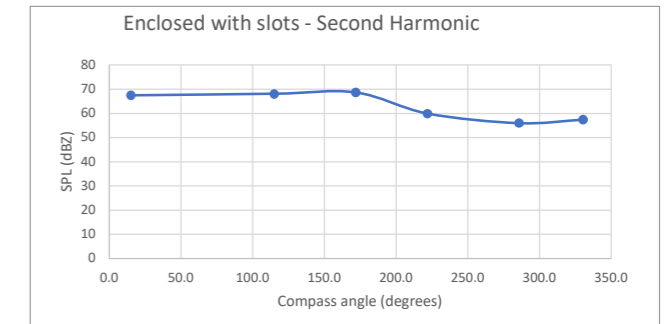
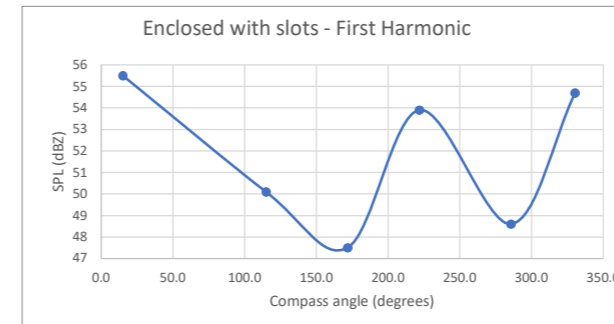
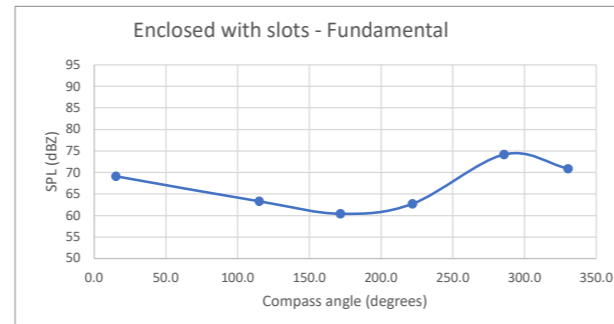
Lower end and top panels removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		129.8	91.2	76.7
2	15.1	82.8	52.2	62.5
3	115.0	81.3	48.2	54.3
4	171.7	85.2	51.6	60.4
5	221.9	83.4	53.4	60.1
6	285.8	86.5	50	59.1
1	330.3	85.2	58.1	60.1
Average		84.4	53.5	60.0
Top open area m ²	2.28			
End panel above deck open area m ²	0			
End panel below deck open area m ²	3.17			



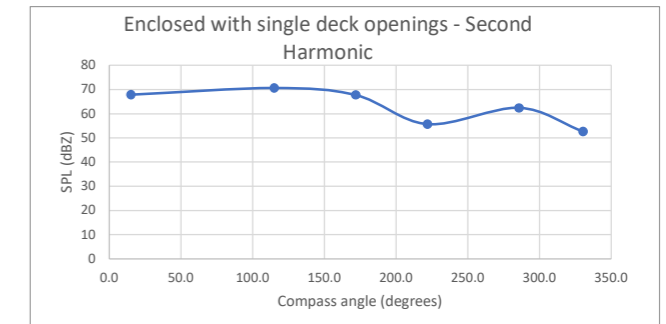
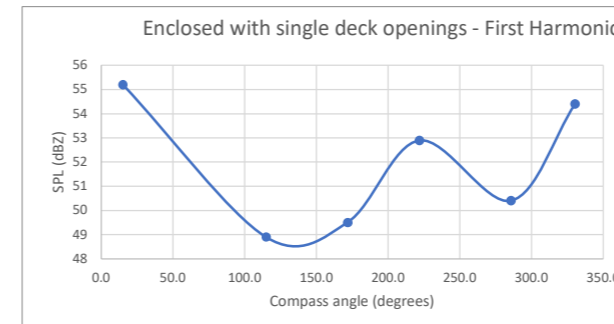
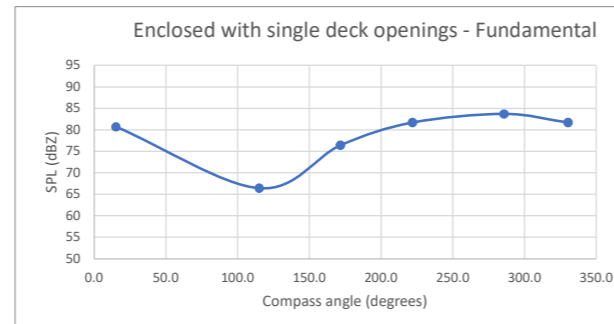
Lower end, upper end and top panels removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		131.3	88.4	108.9
2	15.1	89.4	50.7	55.3
3	115.0	83.6	51.3	61.4
4	171.7	87	52.2	56.8
5	221.9	93.4	54.5	48.3
6	285.8	88.2	52.2	56.3
1	330.3	88	51.3	52.1
Average		89.3	52.2	56.8
Top open area m ²	2.28			
End panel above deck open area m ²	3.17			
End panel below deck open area m ²	3.17			



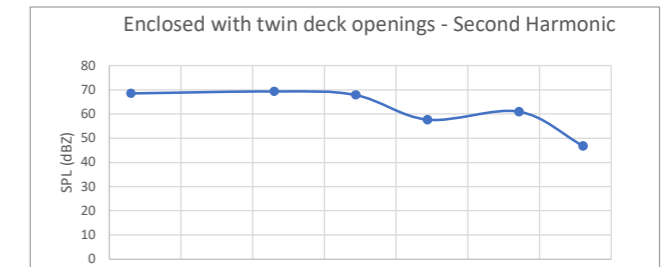
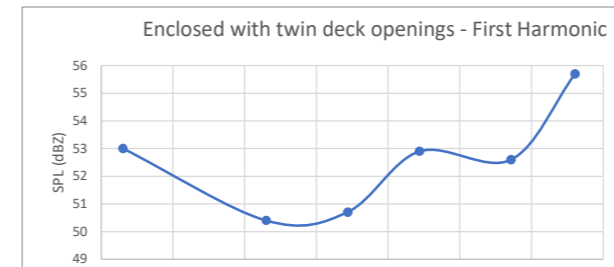
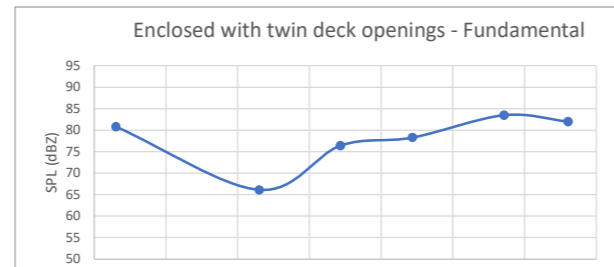
Enclosed with slots				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		129.7	89.5	89.9
2	15.1	69.1	55.5	67.5
3	115.0	63.3	50.1	68.1
4	171.7	60.4	47.5	68.7
5	221.9	62.7	53.9	59.9
6	285.8	74.2	48.6	56
1	330.3	70.9	54.7	57.4
Average		69.4	52.7	65.5
Top open area m ²	0			
End panel above deck open area m ²	0.04			
End panel below deck open area m ²	0.04			



Enclosed with single deck openings				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		130.5	88.6	82
2	15.1	80.7	55.2	67.9
3	115.0	66.4	48.9	70.6
4	171.7	76.4	49.5	67.8
5	221.9	81.7	52.9	55.7
6	285.8	83.7	50.4	62.4
1	330.3	81.7	54.4	52.6
Average		80.6	52.5	66.4
Top open area m ²	0.76			
End panel above deck open area m ²	0.42			
End panel below deck open area m ²	0			



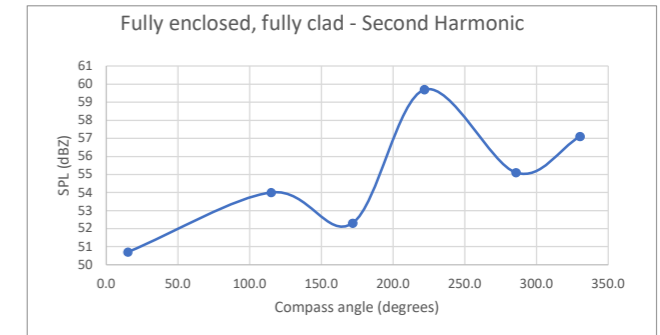
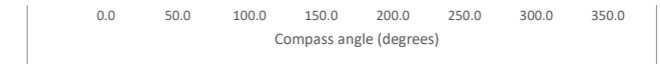
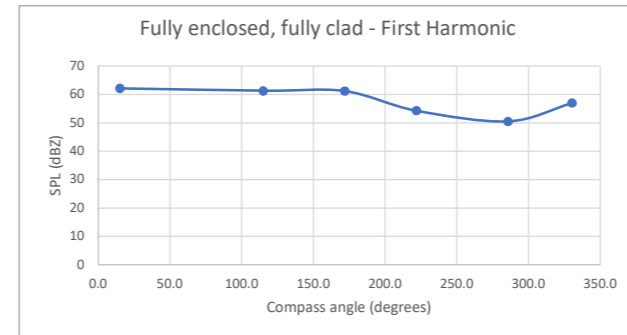
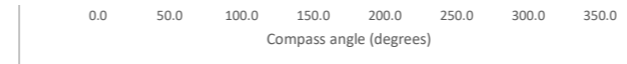
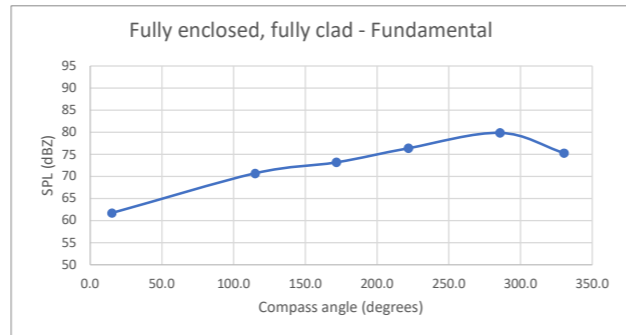
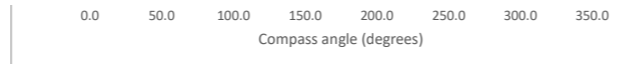
Enclosed with twin deck openings				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		130.4	89	78.3
2	15.1	80.8	53	68.6
3	115.0	66.1	50.4	69.4
4	171.7	76.4	50.7	67.9
5	221.9	78.3	52.9	57.7
6	285.8	83.5	52.6	61
1	330.3	82	55.7	46.8
Average		80.1	52.9	66.0



Top open area m ²	0.76
End panel above deck open area m ²	0.42
End panel below deck open area m ²	0.42

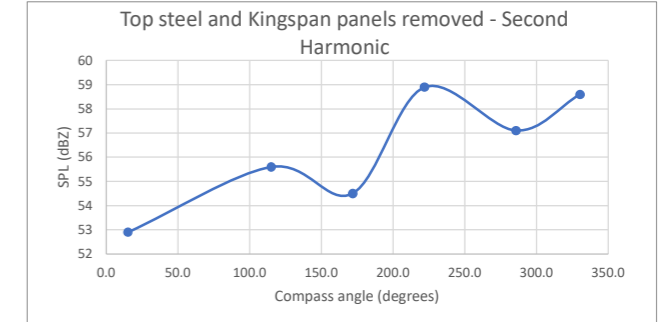
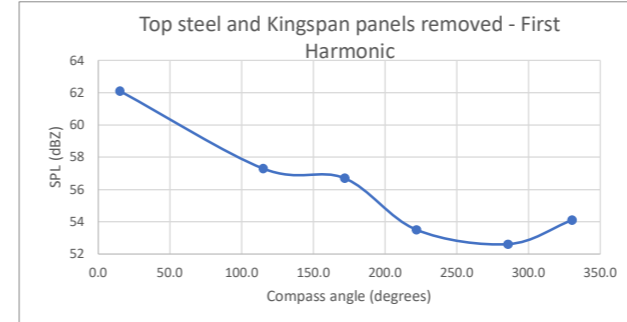
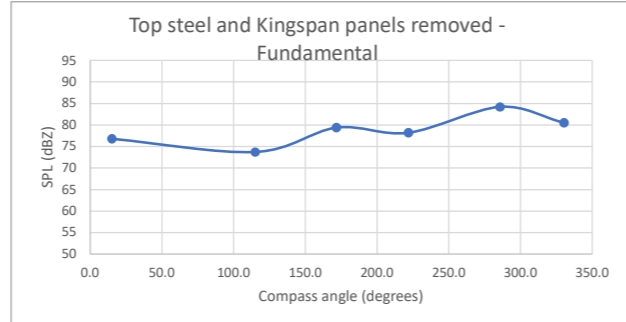
Fully enclosed, fully clad				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		129.7	87.7	78.5
2	15.1	61.7	62.2	50.7
3	115.0	70.7	61.3	54
4	171.7	73.2	61.2	52.3
5	221.9	76.4	54.3	59.7
6	285.8	79.9	50.5	55.1
1	330.3	75.3	57	57.1
Average		75.4	59.4	55.9

Top open area m ²	0
End panel above deck open area m ²	0
End panel below deck open area m ²	0



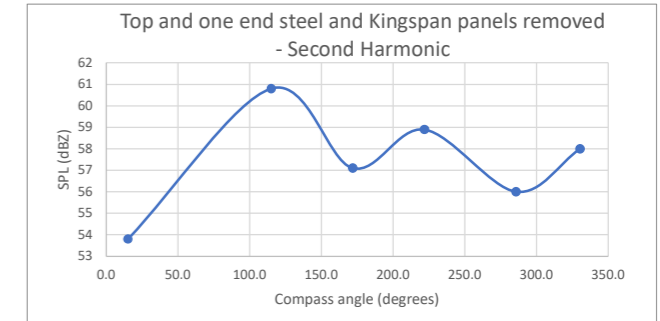
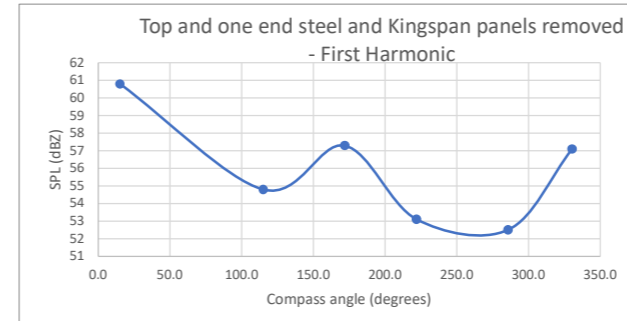
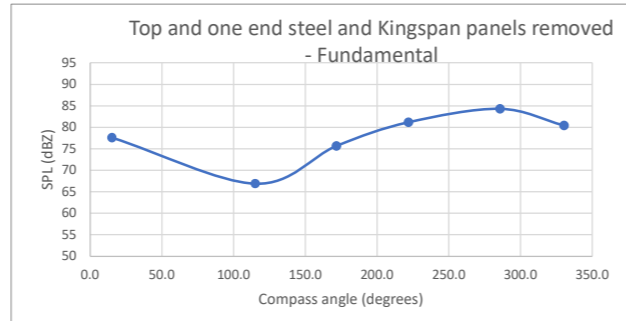
Top steel and Kingspan panels removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		129.9	90.4	85.2
2	15.1	76.8	62.1	52.9
3	115.0	73.7	57.3	55.6
4	171.7	79.4	56.7	54.5
5	221.9	78.2	53.5	58.9
6	285.8	84.2	52.6	57.1
1	330.3	80.5	54.1	58.6
Average		80.0	57.4	56.8

Top open area m ²	2.28
End panel above deck open area m ²	0
End panel below deck open area m ²	0



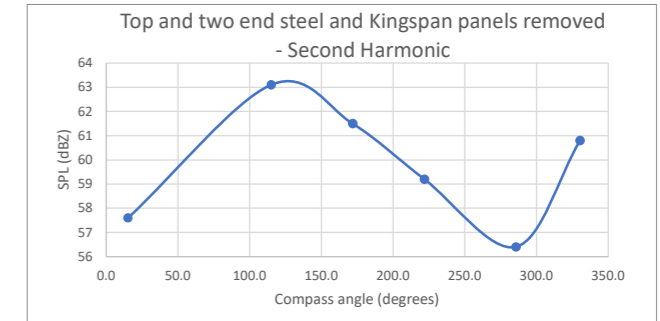
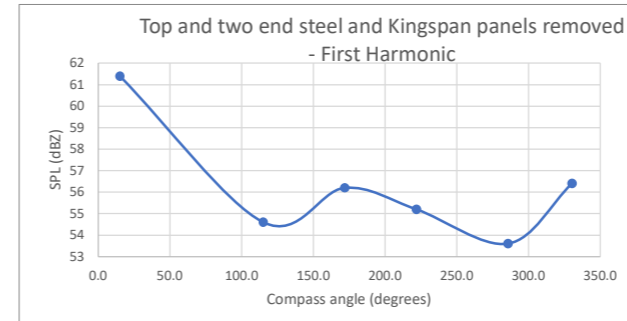
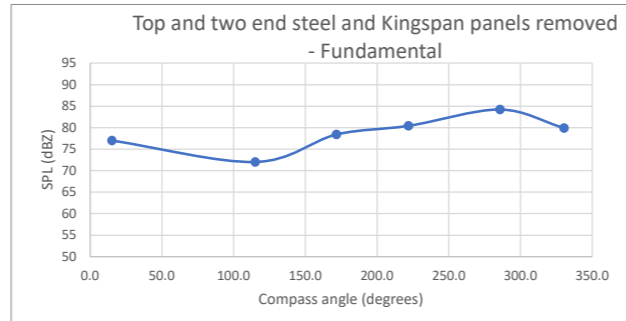
Top and one end steel and Kingspan panels removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		130.4	90.7	83
2	15.1	77.6	60.8	53.8
3	115.0	66.9	54.8	60.8
4	171.7	75.7	57.3	57.1
5	221.9	81.2	53.1	58.9
6	285.8	84.3	52.5	56
1	330.3	80.4	57.1	58
Average		80.1	56.9	58.0

Top open area m ²	2.28
End panel above deck open area m ²	0.42
End panel below deck open area m ²	0



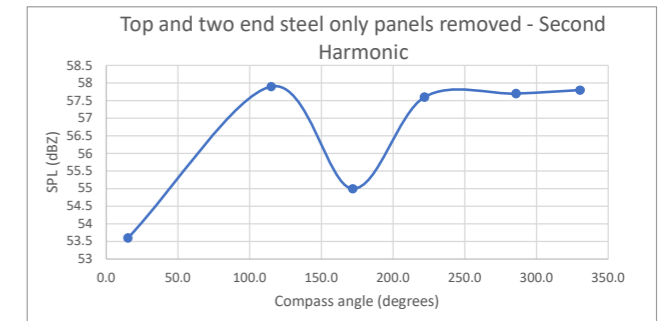
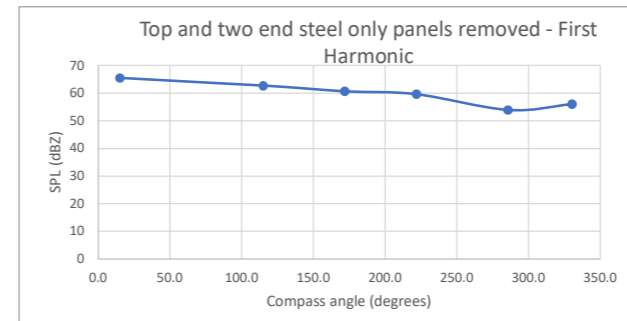
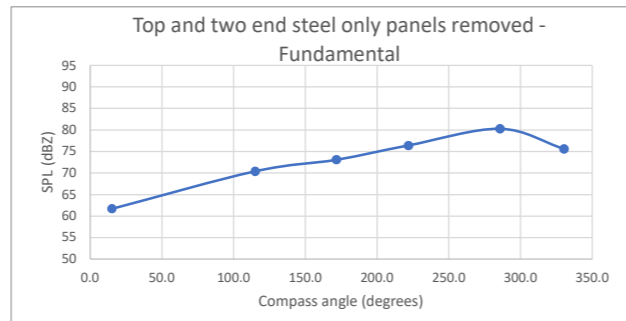
Top and two end steel and Kingspan panels removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		130.1	91.3	85.1
2	15.1	77	61.4	57.6
3	115.0	72	54.6	63.1
4	171.7	78.4	56.2	61.5
5	221.9	80.4	55.2	59.2
6	285.8	84.2	53.6	56.4
1	330.3	79.9	56.4	60.8
Average		80.0	57.1	60.3

Top open area m ²	2.28
End panel above deck open area m ²	0.42
End panel below deck open area m ²	0.42



Top and two end steel only panels removed				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1
0		129.6	93.8	77.6
2	15.1	61.7	65.5	53.6
3	115.0	70.4	62.7	57.9
4	171.7	73.1	60.7	55
5	221.9	76.4	59.6	57.6
6	285.8	80.3	53.9	57.7
1	330.3	75.6	56	57.8
Average		75.6	61.3	56.9

Top open area m ²	2.28
End panel above deck open area m ²	0.42
End panel below deck open area m ²	0.42



Enclosed with chute				
Mic	Angle	Fundamental	Harmonic 1	Harmonic 2
		Test 1	Test 1	Test 1



0				
2	15.1	64.1	58.5	58.2
3	115.0	64.8	55.2	61.9
4	171.7	71.3	46.1	51.6
5	221.9	77.7	58.6	45.7
6	285.8	77.4	50.7	61.1
1	330.3	72.1	53.9	59.1
Average		74.0	55.6	58.7
Top open area m ²			0.76	
Chute discharge area m ²			0.42	
End panel below deck open area m ²			0	

