

APPENDIX 4.6 - Helicopter Noise Calculation

Without Lateral Movements - Idling

Super Puma AS332 L2 - Idling

Location	Horizontal Distance (m)	Line of Sight	Lmax @ 150m, dB(A)	Lmax @ NSR, dB(A)	Topo. Corr., dB(A)	Façade Corr., dB(A)	Corrected Lmax, dB(A)	Exceedance, dB(A)
NSR1	301.0	Direct line of sight	82.0	76.0	0	3	79.0	nil
NSR2	256.6	Direct line of sight	82.0	77.3	0	3	80.3	nil
NSR3	246.4	Direct line of sight	82.0	77.7	0	3	80.7	nil
NSR4	220.7	Direct line of sight	82.0	78.6	0	3	81.6	nil
NSR5	263.3	Direct line of sight	82.0	77.1	0	3	80.1	nil
NSR6	292.1	Direct line of sight	82.0	76.2	0	3	79.2	nil

EC155 B1 - Idling

Location	Horizontal Distance (m)	Line of Sight	Lmax @ 150m, dB(A)	Lmax @ NSR, dB(A)	Topo. Corr., dB(A)	Façade Corr., dB(A)	Corrected Lmax, dB(A)	Exceedance, dB(A)
NSR1	301.0	Direct line of sight	80.0	74.0	0	3	77.0	nil
NSR2	256.6	Direct line of sight	80.0	75.3	0	3	78.3	nil
NSR3	246.4	Direct line of sight	80.0	75.7	0	3	78.7	nil
NSR4	220.7	Direct line of sight	80.0	76.6	0	3	79.6	nil
NSR5	263.3	Direct line of sight	80.0	75.1	0	3	78.1	nil
NSR6	292.1	Direct line of sight	80.0	74.2	0	3	77.2	nil

Without Lateral Movements - Manoeuvring

Super Puma AS332 L2 - Hovering

Location	Horizontal Distance (m)	Line of Sight	Lmax @ 150m, dB(A)	Lmax @ NSR, dB(A)	Topo. Corr., dB(A)	Façade Corr., dB(A)	Corrected Lmax, dB(A)	Exceedance, dB(A)
NSR1	301.0	Direct line of sight	90.6	84.6	0	3	87.6	2.2
NSR2	256.6	Direct line of sight	90.6	85.9	0	3	88.9	3.5
NSR3	246.4	Direct line of sight	90.6	86.3	0	3	89.3	3.9
NSR4	220.7	Direct line of sight	90.6	87.2	0	3	90.2	4.8
NSR5	263.3	Direct line of sight	90.6	85.7	0	3	88.7	3.3
NSR6	292.1	Direct line of sight	90.6	84.8	0	3	87.8	2.4

EC155 B1 - Lift-Off

Location	Horizontal Distance (m)	Line of Sight	Lmax @ 150m, dB(A)	Lmax @ NSR, dB(A)	Topo. Corr., dB(A)	Façade Corr., dB(A)	Corrected Lmax, dB(A)	Exceedance, dB(A)
NSR1	301.0	Direct line of sight	87.7	81.7	0	3	84.7	nil
NSR2	256.6	Direct line of sight	87.7	83.0	0	3	86.0	0.6
NSR3	246.4	Direct line of sight	87.7	83.4	0	3	86.4	1.0
NSR4	220.7	Direct line of sight	87.7	84.3	0	3	87.3	1.9
NSR5	263.3	Direct line of sight	87.7	82.8	0	3	85.8	0.4
NSR6	292.1	Direct line of sight	87.7	81.9	0	3	84.9	nil

With Lateral Movements - Approaching [Calculation based on ICAO maximum noise level]

Super Puma AS332 L2 - Approaching (250 - 320 degrees bearing)

Location	Slant Distance (m)	Line of Sight	Lmax @ 120m, dB(A)	Lmax @ NSR, dB(A)	Topo. Corr., dB(A)	Façade Corr., dB(A)	Corrected Lmax, dB(A)	Exceedance, dB(A)
NSR1	253.1	Direct line of sight	87.7	81.2	0	3	84.2	nil
NSR2	226.3	Direct line of sight	87.7	82.2	0	3	85.2	nil
NSR3	246.4	Direct line of sight	87.7	81.5	0	3	84.5	nil
NSR4	220.7	Direct line of sight	87.7	82.4	0	3	85.4	nil
NSR5	263.3	Direct line of sight	87.7	80.9	0	3	83.9	nil
NSR6	281.1	Direct line of sight	87.7	80.3	0	3	83.3	nil

EC155 B1 - Approaching (250 - 330 degrees bearing)

Location	Slant Distance (m)	Line of Sight	Lmax @ 120m, dB(A)	Lmax @ NSR, dB(A)	Topo. Corr., dB(A)	Façade Corr., dB(A)	Corrected Lmax, dB(A)	Exceedance, dB(A)
NSR1	220.0	Direct line of sight	84.9	79.6	0	3	82.6	nil
NSR2	200.6	Direct line of sight	84.9	80.4	0	3	83.4	nil
NSR3	246.4	Direct line of sight	84.9	78.7	0	3	81.7	nil
NSR4	220.7	Direct line of sight	84.9	79.6	0	3	82.6	nil
NSR5	263.3	Direct line of sight	84.9	78.1	0	3	81.1	nil
NSR6	261.0	Direct line of sight	84.9	78.2	0	3	81.2	nil