

Would the Helipad Increase Noise Levels for San Francisco Residents Living Within One Mile of the Helipad?

FREQUENCY OF FLIGHTS.

24-hour-a-day flights will awaken residents throughout the night, with a minimum goal of 3 flights per day, that is 2,190 take offs and landings per year, 39% of flights at night.

NOISE LEVELS AND INTRUSION.

Air Ambulance Helicopter's sound levels are twice as loud as a jackhammer, up to 105 dB. This up to 105db sound 'siren' of an Air Ambulance Helicopter cannot be turned off whether the Helicopter is performing a trauma rescue (estimate of 53 flights per year) or a routine patient inter-facility transfer (estimate of 1,095 flights per year). We would never allow our police vehicles to leave their sirens on during routine patrols or transfers. We would never allow our fire engines to leave their sirens on when returning back to the fire house after fighting a fire. A Helicopter does not have the option of turning off it's 'siren' for routine patient transfers.

HELICOPTER NOISE CONSISTS OF A COMPLEX MIXTURE OF SOUNDS.

Repeating impulse noise from the main rotor blades in high-speed forward flight may approach Mach 1 (the

speed of sound). Shock waves begin to form at this condition, and turbulent air flow generates further noise. This is high-speed impulsive (HSI) noise. Another source of noise is blade-vortex interaction (BVI) noise which is directed down. BVI is a distinctive type of noise: the annoying "blade-slap" of helicopters, much more significant in descent and landing.

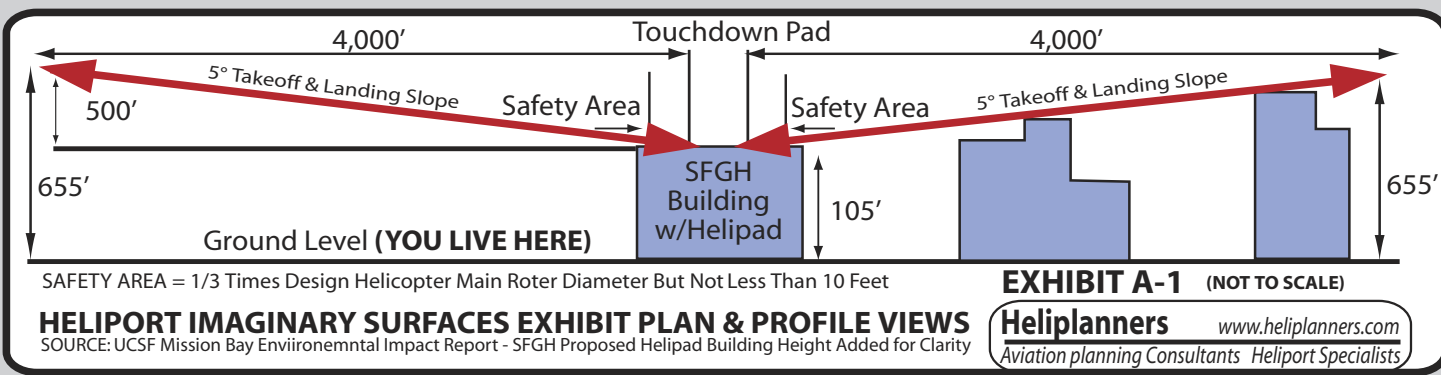
TAIL ROTOR NOISE.

The worst noise from almost any Helicopter is tail rotor noise. Rotors don't like being dragged through the air sideways. This noise is particularly annoying to humans due to a higher frequency directly in the band in which the ear is most sensitive and does the most damage.

MORE NOISE INTRUSION.

A Helicopter begins it's final descent for landing at ±4,000 feet from the helipad (a distance of almost almost one mile!). At the recommended 5 degree landing and takeoff angle, this descent begins approximately 650' above the ground to land on the proposed SFGH helipad 105' above ground. This same noise pattern then repeats itself in reverse for every takeoff.

Takeoff and Landing from San Francisco General Main Hospital Building



Neighbors of SFGH – United to support our hospital and stop the helipad

1,500 feet



255 Horsepower

TRAFFIC OR POLICE HELICOPTER

These flyover at a minimum of 1,500 feet above the ground.

Medical Air Ambulance Helicopters Are Up To 2 Times Larger, 4 Times Heavier And 3 Times Louder Than Your Typical Traffic Or Police Helicopter

TRAFFIC OR POLICE HELICOPTER

Specifications - Schweizer Model 333 Helicopter, USA
 Engine: Single Rolls Royce 250-C20W turboshaft engine, 235 Horsepower.
 Main rotor blades 3
 Main rotor dia. 27 Feet
 Fuselage length 22 Feet
 Length w/rotor 28 Feet
 Height w/skids 8.7 Feet
 Tail rotor dia 4.25 Feet
 Rotor speed 471 rpm
 Empty weight 1,250 lbs
 Max weight 2,550lbs

TYPICAL MEDICAL HELICOPTER

Specifications - Bell 430, Twin-Engined Helicopter, USA
 Engine: Two (2) Rolls-Royce 250-C40B turboshaft engines, 808 Horsepower ea engine.
 Main rotor blades 4
 Main rotor dia. 42 Feet
 Fuselage length 44 Feet
 Length w/rotor 50 Feet
 Height w/skids 14 Feet
 Tail rotor dia. 7 Feet
 Rotor speed 348 rpm
 Empty weight 5,306 lbs
 Max weight 9,300 lbs

105 feet
SFGH
Building
with
Helipad



1,616 Horsepower

TYPICAL MEDICAL HELICOPTER

These will land at SFGH 105 feet above the ground.

Ground Level

SOUND LEVELS AND RELATIVE LOUDNESS OF TYPICAL NOISE SOURCES IN OUTDOOR ENVIRONMENTS

Subjective Volumes Relative to a Dense urban ambient sound at 73 dB

DB LEVEL	SUBJECTIVE VOLUME	OVERALL EFFECT	COMMUNITY NOISE LEVELS (OUTDOORS)
150	256 times as loud	Eardrum rupture	Jet aircraft take-off at 85 feet
140	128 times as loud	Extreme Danger	Aircraft carrier deck
130	64 times as loud	Very Uncomfortable	Jet aircraft take-off at 300 ft (130 dB)
120	32 times as loud	Uncomfortable	Thunder, Jet aircraft at takeoff 200 ft (118 dB); Rock band (108-120 dB)
110	16 times as loud	Human Pain Threshold	Steel mill; riveting; auto horn at 3 ft (114 dB)
103	10 times as loud	Extremely Annoying	Boeing 737 flyover at 1,000 feet (103 dB);
100	8 times as loud	Extremely Annoying	Bell J-2A Medical Helicopter at 100 ft (100 dB)
90	4 times as loud	Very Annoying	Boeing 737 at one mile landing (97 dB); power mower 3 ft (96 dB)
80	2 times as loud	Annoying	Prop plane 1,000 ft; Schweizer 333 Traffic Helicopter flyover (83 dB)
70	(Relative to 70 dB)	Moderately loud	Dense urban ambient sound (73 dB); freeway at 50 ft -10 a.m. (76 dB)
60	Half as loud	Moderately Quiet	Conversation in restaurant; typical office; Air conditioner 100 ft (60 dB)
50	One-fourth as loud	Quiet	Quiet suburb; conversation at home
40	One-eighth as loud	Quiet	Library, Bird calls (44 dB); lowest limit of urban ambient sound (40 dB)
30	One-sixteenth as loud	Very Quiet	Quiet rural area

SOURCE: Federal Agency Review of Airport Noise Analysis Issues, Federal Interagency Committee on Noise (August 1992)



STOP HELIPAD

Get involved – get more facts! www.stophelipad.com