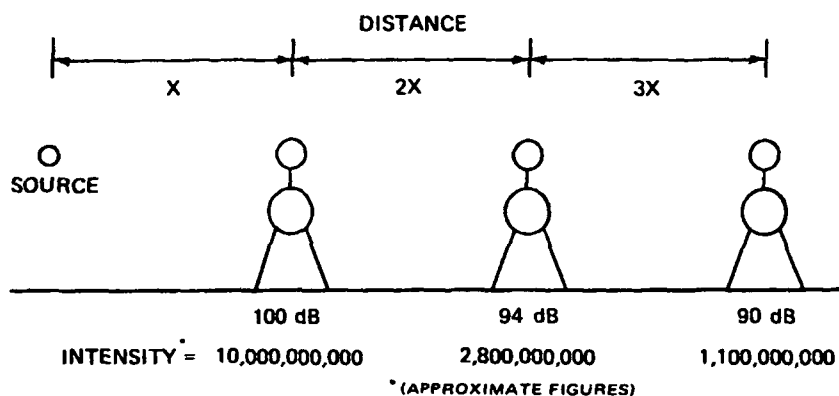




NOISE CONTROL BY DISTANCE

FIG 40-1 —As the distance from the noise source increases, the pressure (or intensity) of the noise decreases faster than its sound level. The "intensity" shown here has absolutely no relationship with the sound pressure figures shown below.

TABLE 40-A
SOUND PRESSURE AND DECIBEL VALUES FOR SOME TYPICAL SOUNDS

Sound Pressure (microbars)	Overall Sound Pressure Level (dB re 0.0002 microbar)	Example
0.0002	0	Threshold of hearing
0.00063	10	
0.002	20	Studio for sound pictures
0.0063	30	Soft whisper (5 feet)
0.02	40	Quiet office
		Audiometric testing booth
0.063	50	Average residence
		Large office
0.2	60	Conversational speech (3 feet)
0.63	70	Freight train (100 feet)
1.0	74	Average automobile (30 feet)
2.0	80	Very noisy restaurant
		Average factory
6.3	90	Subway
		Printing press plant
20	100	Looms in textile mill
		Electric furnace area
63	110	Woodworking
		Casting shakeout area
200	120	Hydraulic press
		50 hp siren (100 feet)
2000	140	Jet plane
200,000	180	Rocket launching pad

Note that doubling any sound pressure corresponds to an increase of 6 dB in the sound pressure level. A change of sound pressure by a factor of 10 corresponds to a change in sound pressure level of 20 dB.