KUNIA ROAD SITE

(1) Assuming only 10 percent of monthly 6500 helicopter flights will overfly this site as planned or local flights (DOE Standard DOE–STD–3014–96, pp. 46)

$N_H = 0.10 \times 6500 \times 12 = 7020$ flights/yr

$P_H = 2.5 \times 10^{-5}$ per flight (DOE, 1996, Table B–1)

$A_H = 0.00058$ mi^2

$L_H =$ average length of flight = approximately 20 mi from Dillingham Airfield to Harbor View at South

Using Equation (5–3) of DOE (1996),

Helicopter Crash Frequency $= N_H \times A_H \times P_H \times \frac{2}{L_H} = 7020 \times 5.8 \times 10^{-4} \times 2.5 \times 10^{-5} \times \frac{2}{20}$

$= 1.01 \times 10^{-5}$ per year

General Aviation Aircraft

$N_{GA} = 6500 \times 12 - 70200 = 7800$ flights/yr (assumed all overflying the site)

$A_{GA} = 0.00279$ mi^2 (assumed General aviation turbo prop aircraft)

Using Equation (5-2) of DOE (1996):

General Aviation Crash Frequency $= N \times P \times f(x,y) \times A = 2 \times 10^{-4} \times 0.00279 = 5.58 \times 10^{-7}$ per year, assuming $N \times P \times f(x,y)$ equal to 2×10^{-4} from Table B-14 of DOE (1996) for general aviation non-airport operations (average CONUS).

Total Crash Frequency $= 1.01 \times 10^{-5} + 5.58 \times 10^{-7} = 1.1 \times 10^{-5}$ per year

(2) Assuming only 5 percent of monthly 6500 helicopter flights will overfly this site as planned or local flights

$N_H = 0.05 \times 6500 \times 12 = 3510$ flights/yr

$P_H = 2.5 \times 10^{-5}$ per flight (DOE, 1996, Table B–1)

$A_H = 0.00058$ mi^2

L_H = average length of flight = approximately 20 mi from Dillingham Airfield to Harbor View at South

Using Equation 5–3 of DOE (1996),

Helicopter Crash Frequency $= N_H \times A_H \times P_H \times \frac{2}{L_H} = 3510 \times 5.8 \times 10^{-4} \times 2.5 \times 10^{-5} \times \frac{2}{20}$

$= 5.09 \times 10^{-6}$ per year

Total Crash Frequency $= 5.09 \times 10^{-6} + 5.58 \times 10^{-7} = 5.6 \times 10^{-6}$ per year

(3) (2) Assuming only 1 percent of monthly 6500 helicopter flights will overfly this site as planned or local flights

$N_H = 0.01 \times 6500 \times 12 = 780$ flights/yr

$P_H = 2.5 \times 10^{-5}$ per flight (DOE, 1996, Table B–1)

$A_H = 0.00058$ mi^2

L_H = average length of flight = approximately 20 mi from Dillingham Airfield to Harbor View at South

Using Equation 5–3 of DOE (1996),

Helicopter Crash Frequency $= N_H \times A_H \times P_H \times \frac{2}{L_H} = 780 \times 5.8 \times 10^{-4} \times 2.5 \times 10^{-5} \times \frac{2}{20}$

$= 1.13 \times 10^{-6}$ per year

Total Crash Frequency $= 1.13 \times 10^{-6} + 5.58 \times 10^{-7} = 1.7 \times 10^{-6}$ per year