RADIATION HAZARD STATEMENT

The Maximum Permissible Exposure (MPE) for this mobile earth station at a distance of 0.3 meters is calculated as follows:

$S = EIRP/4\pi R^2$

Where S = Power Density (Watts/m^2)
           $EIRP$ = Radiated Power (Watts)
           R = Distance from body (m)

$EIRP$ = maximum EIRP * duty cycle

Max EIRP = 27.7 dBW = 588.8 watts (two carriers each operating at max EIRP)
Duty cycle = 4 time slots * 8.28 ms per transmission / 90 ms per frame = 0.368
EIRP = 588.8* 0.368 = 216.7 watts

$S = 216.7/(4\pi *0.3 *0.3) = 191.6$ Watts/m^2

The minimum separation distance from the terminal to ensure that the power density is below the 10 Watts/m^2 requirement is calculated as:

$R = (EIRP/4\pi S)^{1/2} = (216.7/4\pi 10)^{1/2} = 1.3$ meters

At 1.3m the power density is less than the 10 Watts/m^2 requirement for the general population/uncontrolled exposure.

The installation/user manual specifies a 2m minimum spacing between the Iridium Certus antenna and the general public. Further, there is a warning on the device itself showing the minimum 2m separation distance.