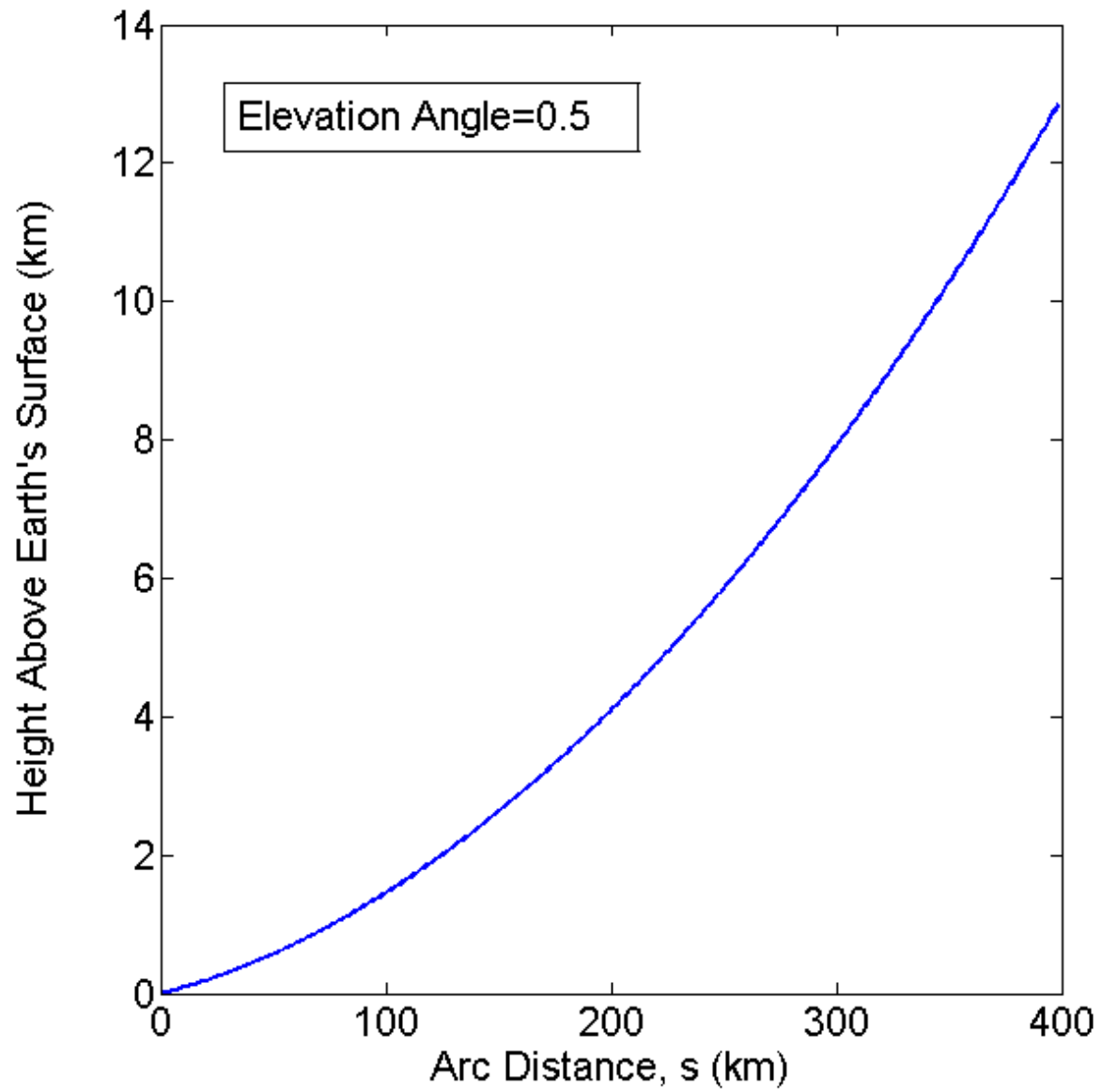


Solutions to Remote Sensing Homework (September 24)

(1)



(2) Penetration Angle of Radar Beam

Inversion Strength (km ⁻¹)	Depth (meters)	Angle (radians)	Angle (degrees)
-3.0x10 ⁻⁴	100	0.0053	0.31
-3.0x10 ⁻⁴	200	0.0076	0.43
-2.0x10 ⁻⁴	100	0.0029	0.17
-2.0x10 ⁻⁴	200	0.0041	0.24

(3)

Maximum Elevation = 0.043 km = 43 m

Arc Distance at Maximum Elevation (optional) = 24.41 km

(4)

reflectivity = 0.0128 mm⁶ m⁻³

effective reflectivity factor = -18.92 dBZ

(5)

minimum detectable reflectivity = -33.42