Determination of Height Above Average Terrain

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     30 Second Terrain Database

Starting point coordinates:  38 24 21   96 14 13

 Maximum distance:    16.0 km          Distance increment:   .050 km

                                        3 - 16 km              Total Path
 Azimuth    Endpoint Coordinates     Average Elevation         Delta H
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     .0      38.5498    96.2369        355.5 meters            21.0 meters
   30.0      38.5304    96.1450        348.4                   17.0
   60.0      38.4777    96.0777        349.3                   28.0
   90.0      38.4057    96.0533        341.4                   24.0
  120.0      38.3338    96.0780        337.6                   12.0
  150.0      38.2812    96.1453        353.8                   27.0
  180.0      38.2619    96.2369        361.9                   41.0
  210.0      38.2812    96.3286        376.0                   89.0
  240.0      38.3338    96.3958        355.8                   31.0
  270.0      38.4057    96.4206        345.7                    6.0
  300.0      38.4777    96.3962        367.5                   34.0
  330.0      38.5304    96.3289        357.4                   19.0

            Average of all radials:   354.2 meters
```

The table above provides the average terrain values for the 12 cardinal translator radials. In this particular case, the radial with the lowest elevation is the 120 degree true radial at 337.6 meters above mean sea level. With the center of radiation at 93.3 meters AGL or 434.1 meters AMSL, the antenna center of radiation is 96.5 meters above average terrain. At this height above average terrain, the maximum effective radiated power permissible is 250 Watts.