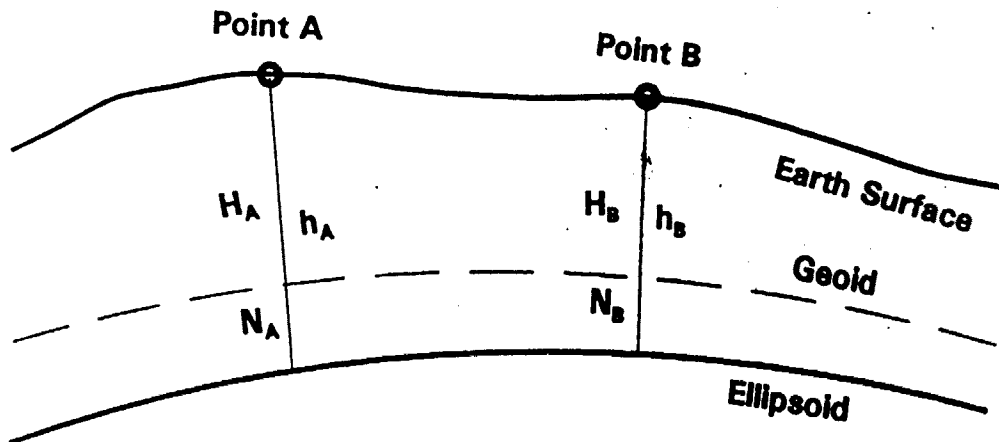


RECOMMENDED GPS LEVELING PROCEDURES

GEOID93 and GEOID96 print out geoid heights to 3 decimal places of meters for any latitude/longitude location input by the user. But since relative geoid heights are more accurate than absolute geoid heights (as obtained from GEOID93 or GEOID96), the following procedure is recommended for determining elevation at an unknown point using GPS data and relative geoid heights from a geoid model (GEOID96).



Given: Known elevation at point A = H_A
GPS based ellipsoid heights at Points A and B, h_A and h_B .
GEOID96 geoid heights at Points A and B, N_A and N_B .

Find: Elevation at Point B.

Solution: $\Delta h = h_B - h_A$ (from GPS results)

$\Delta N = N_B - N_A$ (from GEOID96)

$\Delta H = \Delta h - \Delta N$

$H_B = H_A + \Delta H$