Since renewed interest has been placed on icy moons, potential astrobiological mission ideas have popped up about detecting life in the hypothesized sub-surface oceans’. One key variable in determining such a mission’s feasibility is the distance from the moon’s surface to its ocean. NASA’s CLIPPER and ESA’s JUICE both contain high frequency radar instruments which hope to penetrate these oceans of Europa, and potentially Ganymede or Calisto. Here we study the detectability of Enceladus’s ocean by calculating the 2-way radar attenuation through a simulated Enceladus ice shell. We investigate different properties of the Enceladus ice shell and their effects on 2-way radar attenuation.