

FIGURE 16.4 (a) Skin-depth nomogram, indicating depth probed as a function of period and material conductivity. Representative materials for given conductivities are shown, taken from the ACRES report (1975), which was adapted from Keller (1966). The central solid line represents the skin depth estimate for the actual Earth, assuming a planar half-space of uniform conductivity equal to the conductivity of the lowest evaluated depth of penetration; the upper and lower solid lines are explained below. The central line represents a lower limit on the depth. The almost equivalent dot-dashed lines have been drawn using the model of Achace *et al.* (1981). (b) Expanded version of the central portion of (a), detailing the depth range $100 \text{ km} \leq S \leq 3000 \text{ km}$. (c) Profiles of the conductivity of the Earth versus depth: full line, according to Rokityansky (1982); dash-dot line according to Achace *et al.* (1981). The lines above and below the estimated average profiles are indicative of the 95 percentile probability error distribution for the data of Rokityansky and of some level of uncertainty in the case of Achace *et al.* Rokityansky shows that practically all of the previous estimates of such a profile by different authors basically fall within his limits.

