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**Abstract :** The objective of this study site was to investigate the current state of the practice with regards to karst detection methods and recommend the best method and pattern of arrays to acquire the desire results. Proper site investigation in karst prone regions is extremely valuable in determining the location of possible voids. Two geophysical techniques were employed: multichannel analysis of surface waves (MASW) and electric resistivity tomography (ERT). The MASW data was acquired at each test location using different array lengths and different array orientations (to increase the probability of getting interpretable data in karst terrain). The ERT data were acquired using a dipole-dipole array consisting of 168 electrodes. The MASW data was interpreted (re: estimated depth to physical top of rock) and used to constrain and verify the interpretation of the ERT data. The ERT data indicates poorer quality MASW data were acquired in areas where there was significant local variation in the depth to top of rock.

**Keywords :** dipole-dipole, ERT, Karst terrains, MASW

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