



Comparison of imaging capability of quasi-null and traditional arrays

Mohammad Zubair (1), Mohammad Israil (1), Ernő Prácsér (2), and Szalai Sándor (2)

(1) INDIAN INSTITUTE OF TECHNOLOGY ROORKEE, EARTH SCIENCE, India (zubairmohammadiitr@gmail.com),

(2) MTA CSFK GGI, H-9401 SOPRON POB 5, HUNGARY

One of the first practical experiments by quasi-null arrays have been carried out and their results were compared with those of the traditional dipole-dipole array. Their sensitivity to the end and the dipping of the body was investigated in field analog modeling laboratory enabling the control of the model body among anyway field circumstances. The robustness of the traditional array was verified. It could detect the model body in almost all situations producing a relatively small amount of artifacts. It was however not able to delineate the body vertically and to detect it where the body was found in a relatively large depth below the profile. In contrast, the quasi-null array proved to be good to resolve these problems. Due to the complementary features of traditional-, and quasi-null arrays with their joint application one can get more certain and more precise image about the sub-surface than one could get by their individual applications.