



On the correlation between measurements of very long distance oblique soundings and vertical soundings

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The results obtained from measurements of radio-links between both hemispheres are very difficult to interpret and they are rarely found in the literature. Beyond the well-known theorems (which are no realistic to extend to multi-hop links) no formal study of multi-hops radio-links exists so far. A radio-link from Antarctica (62.6°S , 299.6°E) to Spain (40.8°N , 0.5°E) has run for four years into the frame of the SANDICOM project. The measurements of the above radio soundings during the last survey (December 2006 - January 2007) have been compared with measurements of vertical ionospheric sounder co-located at the receiving point. Despite the very long distance link, a correlation between the MUF's variation of the radio-link and that of the vertical sounding has been found. Similar correlation between measurements of the radio-link and those of vertical sounding at an intermediate point (7.9°S , 345.6°E) has been found also.