

OBLIQUE IONOSPHERIC RADIOSOUNDING MEASUREMENTS OVER SOUTHERN EUROPE AND MEDITERRANEAN AREA: PRELIMINARY RESULTS AND DATA ANALYSIS

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Abstract:

Vertical ionospheric radio soundings have been and continue to be key measurements in providing ionospheric data for global and regional modeling as well as long-term, nowcasting and forecasting ionospheric mapping. Large data bases of routine measurements are available for morphological studies while real time management of network of ionosondes are in operation or in a good progress world-wide. Due to technical and mainly to logistic problems the status of the oblique radio soundings campaigns is completely different. This even if they are extremely important for the testing of propagation predictions for HF radio communications, ionospheric radar localization and surveillance and for validating ionospheric models. It appears that oblique sounding ionospheric observations have been performed much more in the context of real time radio frequency management than systematic measurements for research purposes. The first study of systematic oblique ionospheric radiosounding measurements over Southern Europe and Mediterranean Area, performed on the radio link between Inskip (53.8 N, 2.8 W) in the UK and Rome, Italy (41.8 N, 12.5E) during two seasons and different time periods, is here reported.