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Hydrological visibility of weather radars operating in mountainous regions: case study for the Ardèche catchment, France

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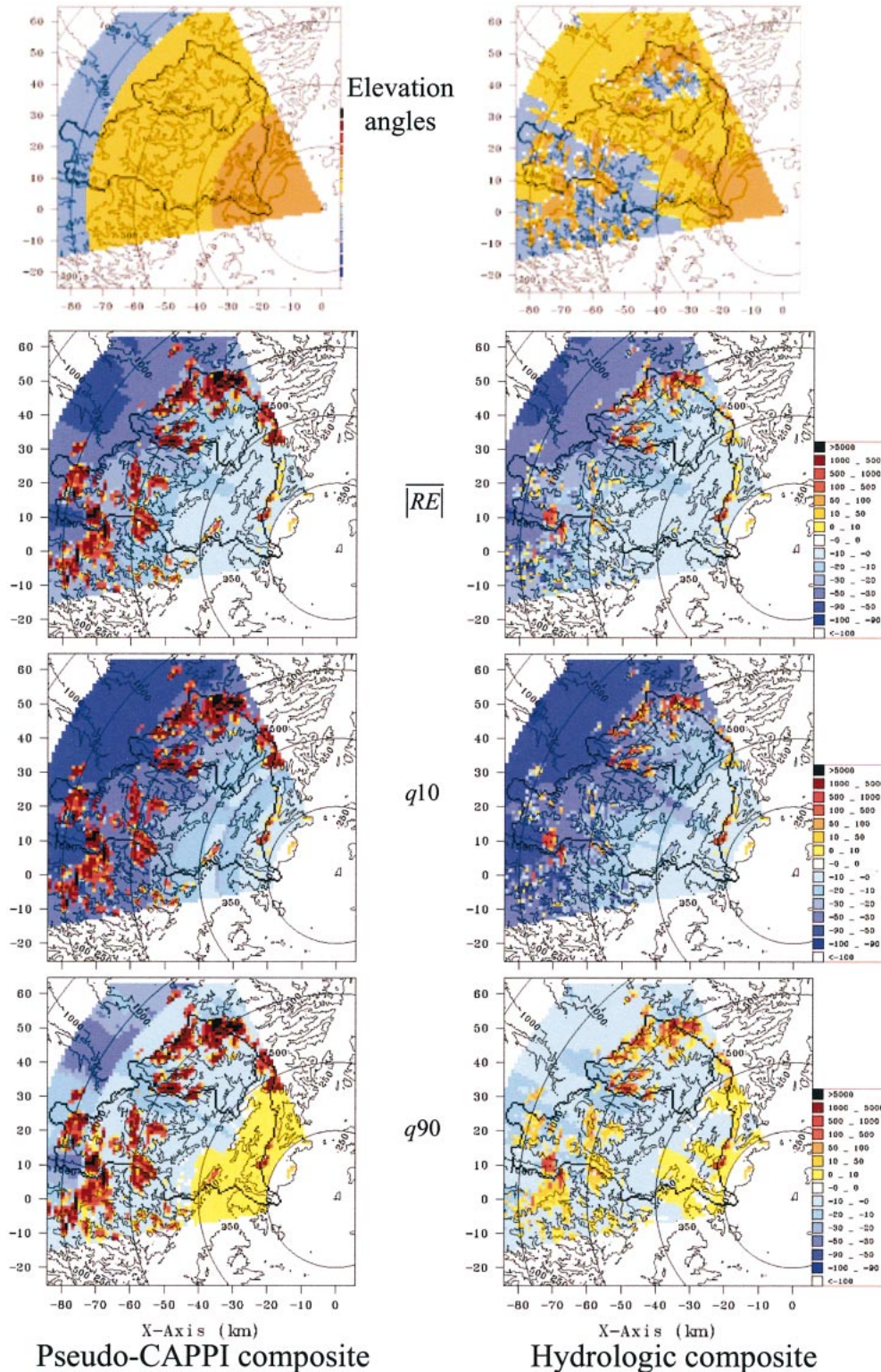


FIG. 5. Results of the hydrologic visibility procedure for the Bollène radar over the azimuthal sector corresponding to the Ardèche catchment. The operational scanning procedure is considered with measurements performed at three elevation angles: 0.8°, 1.2°, and 1.8°. The GCR technique is not applied in the simulations displayed. The left-hand column refers to results obtained with the “pseudo-CAPPI” procedure, based on range consideration only, used for compositing the radar measurements. The right-hand column refers to the “hydrologic composite” based on the selection of the elevation angle that minimizes the rain-rate error at any point. The top graphs present the elevation angles selected for the two compositing methods (lowest, medium, and highest elevation angles in blue, yellow, and orange, respectively). The next

