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# The VOLTAIRE software library for radar data quality control

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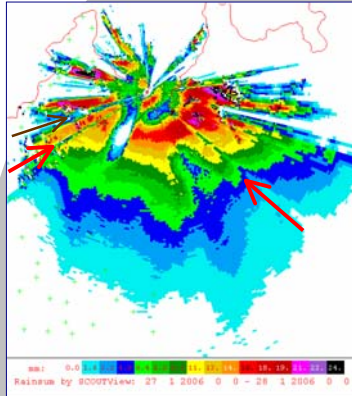


Figure 2a: Cumulated radar image as original with marked beamblock areas (Monte Lema radar, MeteoSwiss)

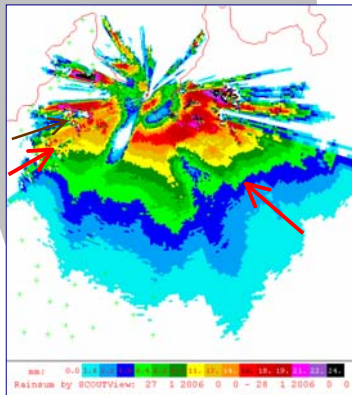


Figure 2b: Cumulated radar image as "Beamblock" corrected (Monte Lema radar, MeteoSwiss)

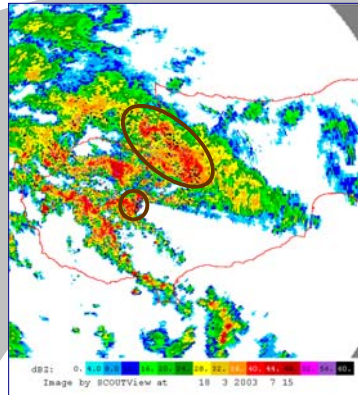


Figure 1a: Original single radar image with marked clutter areas (Kykkos, Cyprus)

One of the objectives of the **VOLTAIRE** project (<http://www.voltaireproject.org/>) was the analysis of recent **radar data quality control** (QC) procedures and their implementation in a software library. Figures 1-3 show applications for different data problems for different radars.

The algorithms have been produced as a C++ library and have been included in "QCTool demo" (free), in "QCTool professional" and in "SCOUT". Both versions of "QCTool" are based on the HDF5 format developed in VOLTAIRE (Golz et al, 2005).

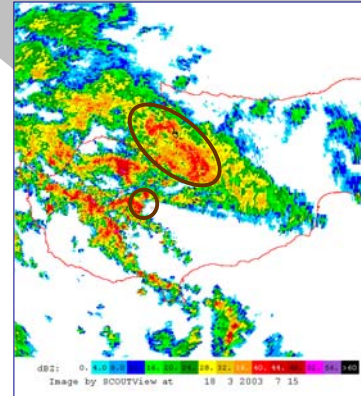


Figure 1b: "Cluttermap" and "texture-based" corrected radar image (Kykkos, Cyprus)

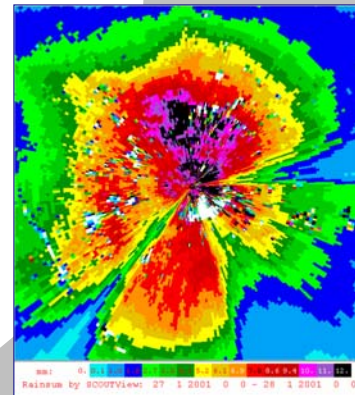


Figure 3a: Cumulated radar image as original (Essen radar, German Weather service (DWD))

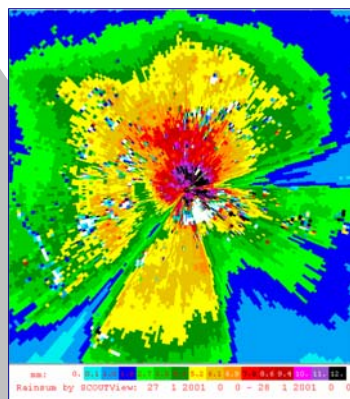


Figure 3b: Cumulated radar image as "Bright band" corrected (Essen radar, German Weather service (DWD))

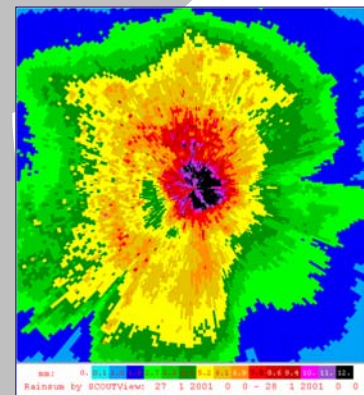


Figure 3c: Cumulated radar image corrected with 5 QC algorithms (Essen radar, German Weather service (DWD))

**Free CD available !**

## References

Golz, C., Einfalt, T., Gabella, M., Galli, G. (2005): Metadata definition, public VOLTAIRE document VOLTAIRE\_HDF5.pdf

For further information please visit our web page  
<http://www.einfalt.de>