

## **Geological and hydrological mapping using airborne TEM at Mayotte Island**

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Airborne electromagnetic methods are practical tools for large scale geological and hydrogeophysical mapping. In this seminar I will show results from the SkyTEM survey on the volcanic island Mayotte (the Indian Ocean - see Google link below). The SkyTEM survey is an essential part of a project aiming on establishing a basic geological model of Mayotte. The island is a part of a small group of islands between Africa and Madagascar, the Comoros Islands.

The survey results are being used for future urban planning with respect to the risk of landslides and ground stability. Also groundwater resources are of high interest and hereby the need for detailed knowledge about the hydrological system and especially the risk of saltwater intrusion into the coastal aquifers.

The results from the SkyTEM survey are very promising and reveal geological structures both at large as well as at the small scale.

In the seminar I will explain how an operation like this is planned and done, how we work and report the data and I will also show how detailed results we actually can obtain when flying 70 km/hour and 50 m above the ground in a helicopter.

The consortium behind the project are: BRGM (French Geological Survey), Conseil Général de Mayotte and The HydroGeophysics Group, Aarhus University, Denmark

Where are Mayotte Island? Click here -

<http://maps.google.com/maps?q=Iloni,+Dembeni,+Mayotte&hl=en&ll=-12.854649,45.197754&spn=11.571088,16.787109&sll=56.162939,10.203921&sspn=0.20685,0.524597&oq=mayotte+i&hnear=Iloni,+Mayotte&t=h&z=6>