



Geophysical Project Proposal

EU-funded project?

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Background - LOI

A LOI (June 2012) was signed between EU and Greenland

- a dialogue between Greenland and the European Union could contribute to release the potential of the mineral resources sector as a lever for Greenland's sustainable development;
- such dialogue should cover the sustainable exploitation of mineral resources, in line with internationally agreed principles regarding market access as well as environmental and labour standards and in full respect of the respective rights of both sides to develop their own policies.

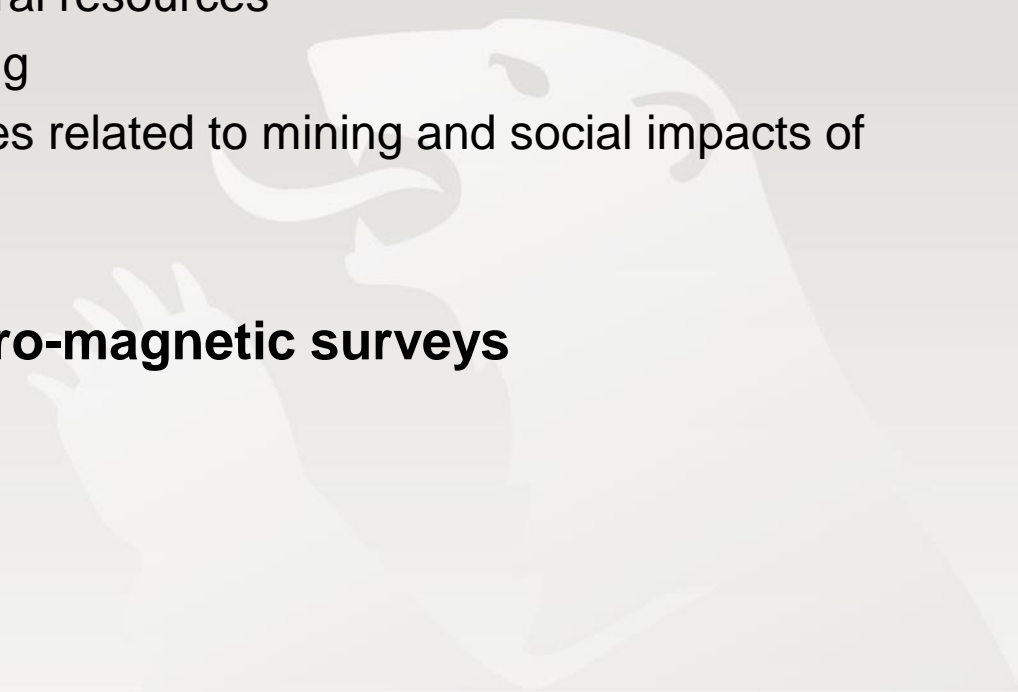


Dialogue

Possible areas for dialogue are:

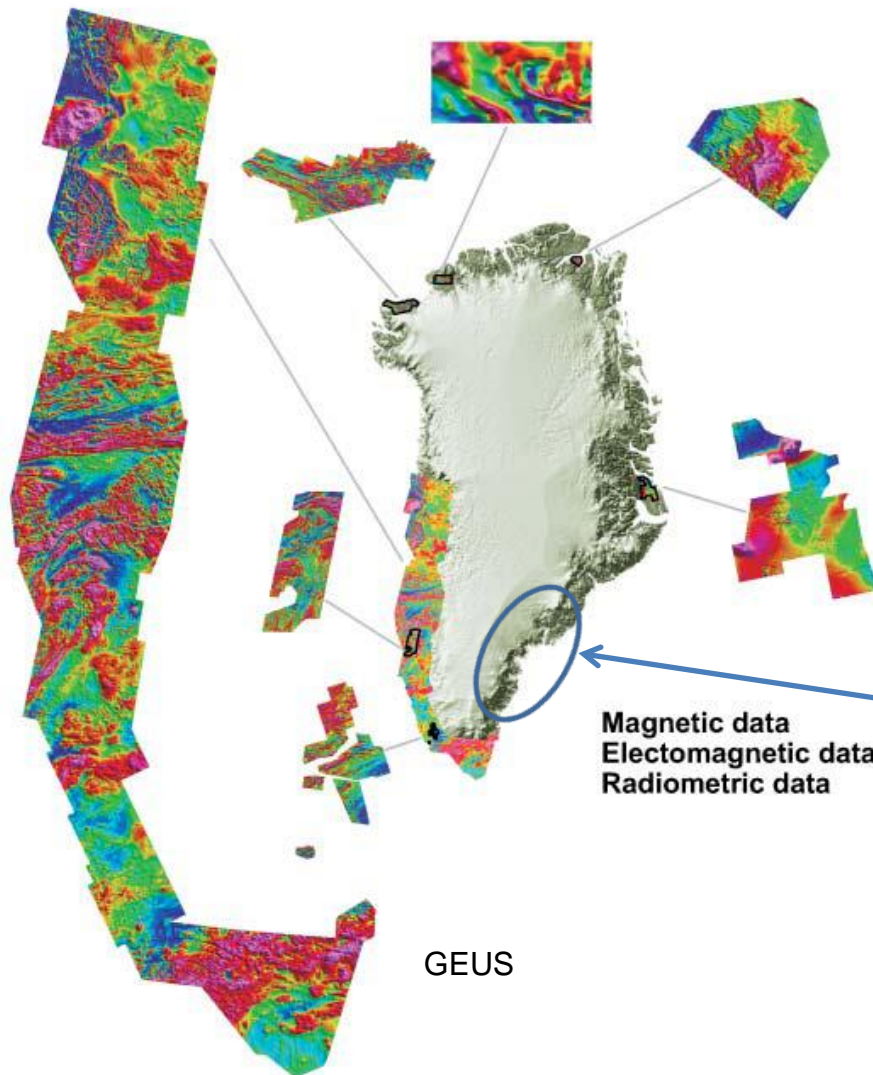
- Geological knowledge
- Analysis of infrastructure and investment needs related to the exploitation of mineral resources
- Competence building
- Environmental issues related to mining and social impacts of mining

Project suggestion – aero-magnetic surveys





Aeromag, EM and radiometric data

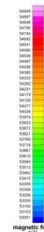


Aero-magnetic and aero-radiometric surveys – approximately only one third of Greenland is covered with aero-magnetic acquisition

It is essential for the geological resource assessment that these surveys will be completed

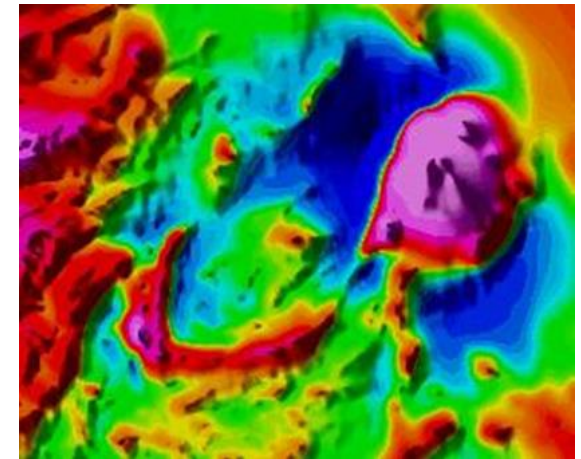
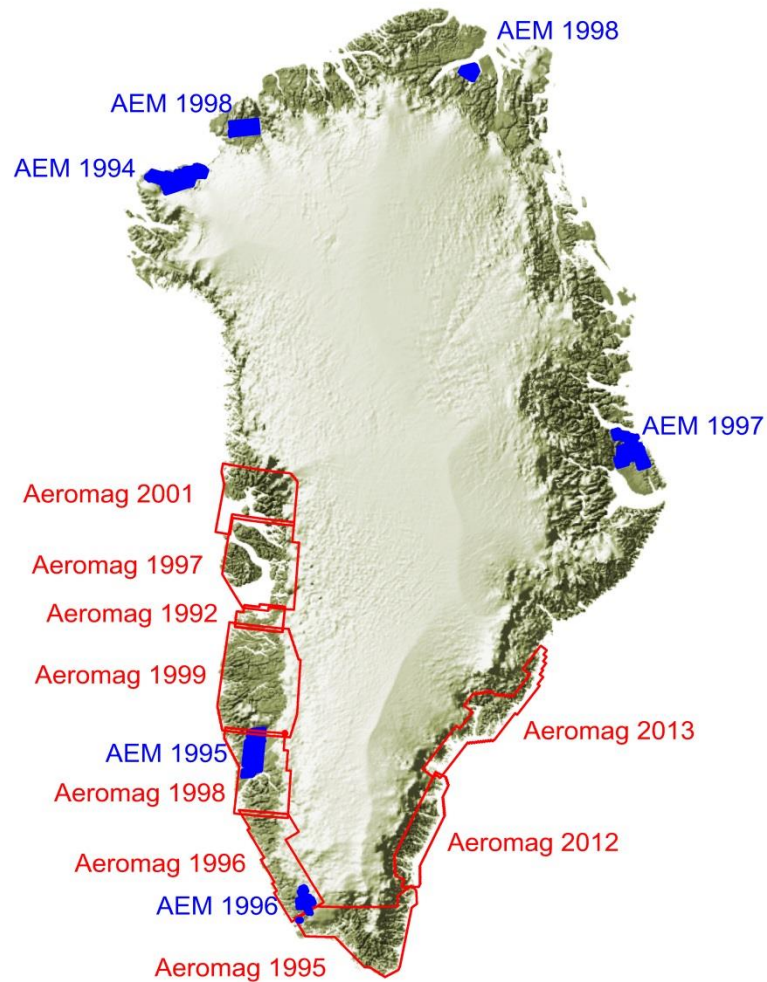
More detailed sampling will be EM surveys by helicopter in smaller areas

2012 – 2013 aero-mag survey

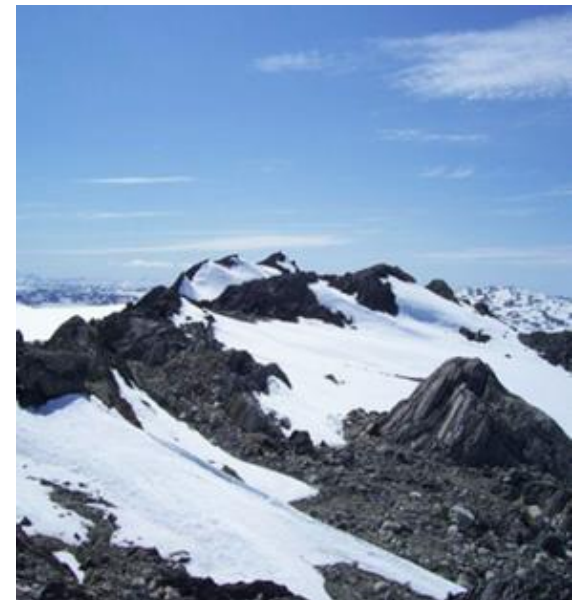




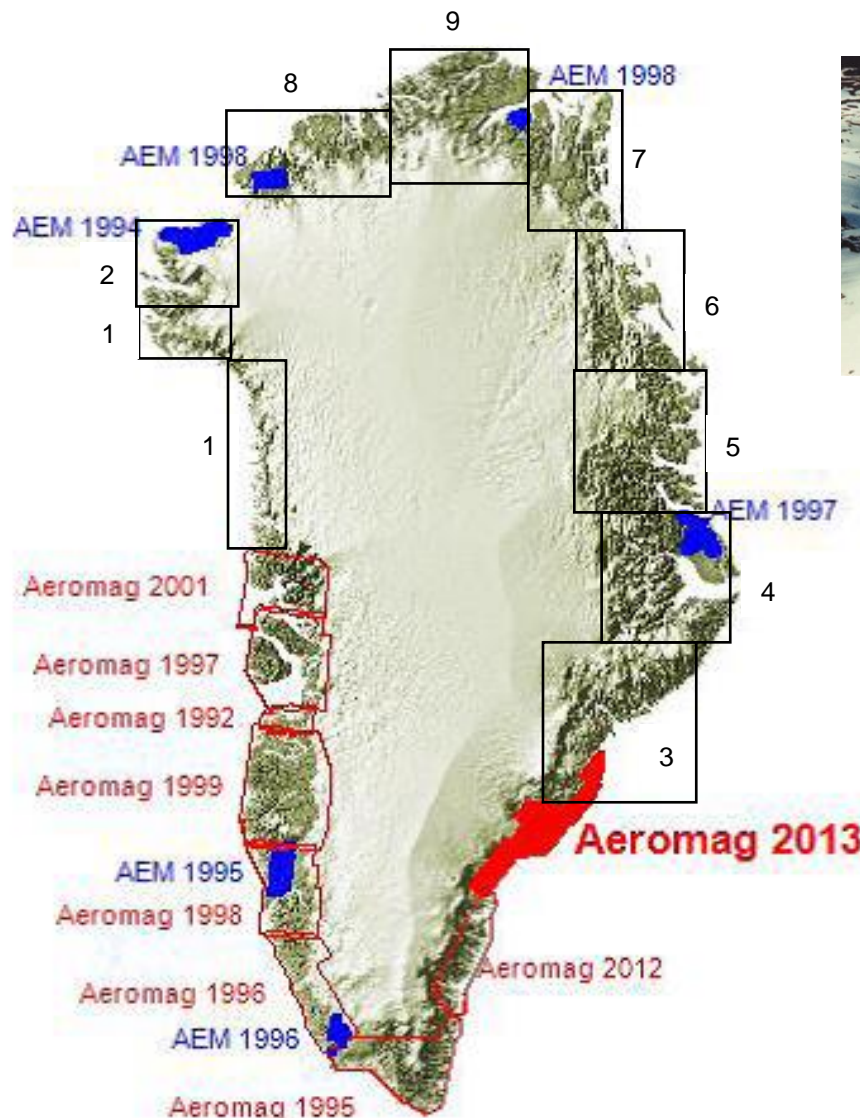
The geophysical surveys



Total magnetic field over Isukasia
(20000 nT anomaly).



New aero-magnetic surveys



Acquisition

- 500 m line spacing
- 5000 m tie-line spacing
- 300 m gentle drape
- Data every 0.1 sec (7 m)

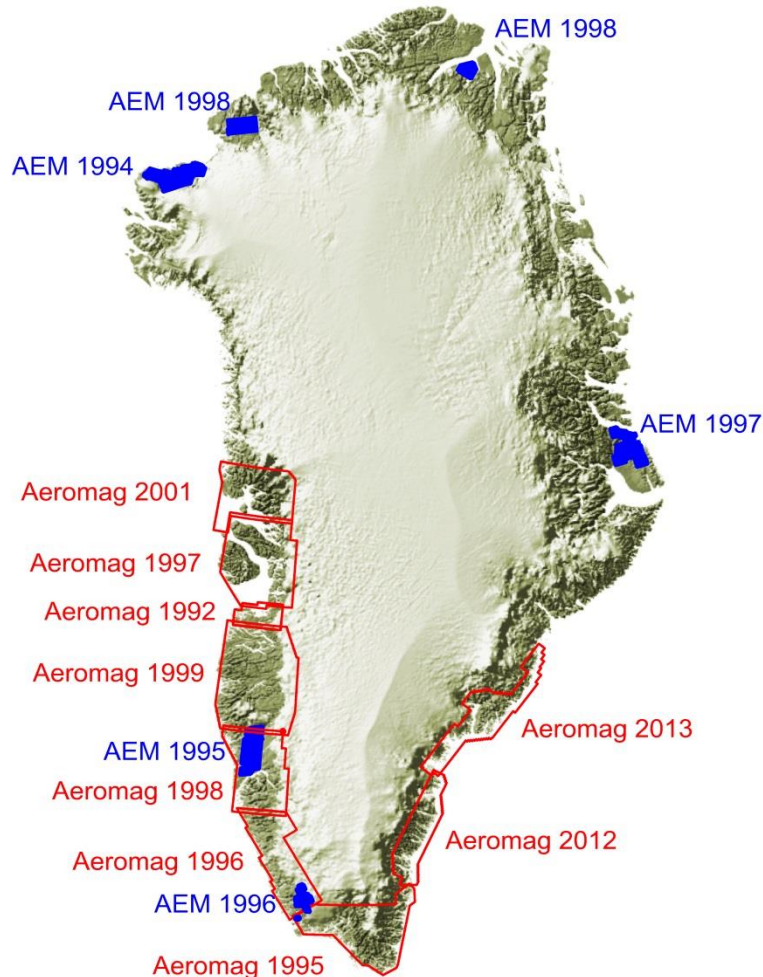
The numbers are prioritized
Typical one survey /year

In addition

Radiometric data can
be gathered



The geophysical surveys – costs!



The costs of geophysical surveys are dependent of:

- Logistic challenges such as the vicinity of an airport and fuel
- Availability of planes – at present it is rather easy to get a plane due to the low exploration activity and to get it for a reasonable price

Estimated costs:

- The 2012 and 2013 surveys have each amounted 1 mill. Euros
- The new surveys are more remote and will each cost between 1.3 – 1.5 mill. Euros



Concluding remarks

Greenland has generally been underexplored compared to similar geological settings elsewhere (Canada, South Africa, Australia) and offers an enormous potential for finding deposits and for educating geo-scientist in remarkably diverse and spectacular geological environments.

The strategy of Greenland's government over the next decade is to maintain a high level of mineral exploration activity to further incentivize the mineral resources industry to obtain exploration and exploitation licenses. Greenland recognizes the importance of mineral resources as indispensable inputs to industrial production, and it aims to become an important source of a variety of minerals. The strategy also focuses on ensuring that the opening of new mines benefits local society the most in the form of new jobs and increased income.

To attract exploration companies to Greenland it is essential that Greenland can deliver basic data such as geological, geochemical and geophysical data of high quality. The first step for a company to enter a new region is to review such data and then decide to go forward or not.